...OLOGY DEPARTMENT
BUSINESS & FINANCE

Modern packaging

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MAR 5
DETROIT

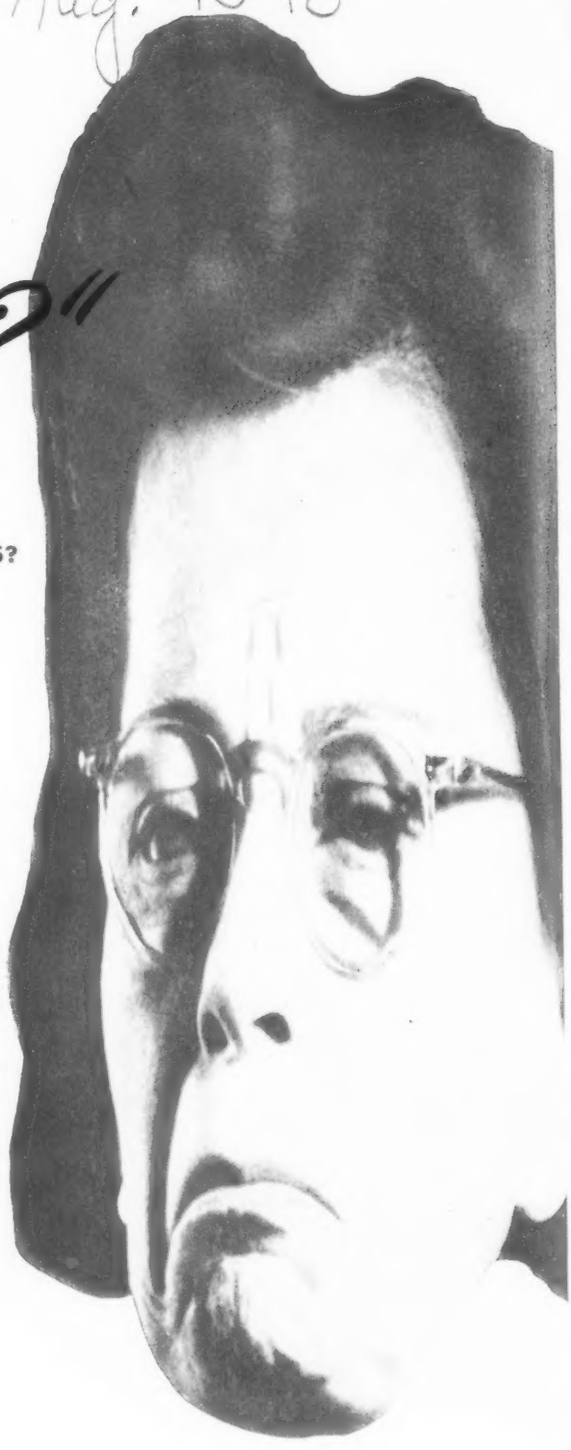
HANDAY
HANDAY
AN EMULSION FOR HANDS
KEEPS HANDS FACE & ARMS SOFT & SMOOTH
HANDAY CORP. NEW YORK, N.Y.
CONT. 6½ FL OZ
WITH THE NEW SHAKER CAP
HANDAY
AN EMULSION FOR HANDS
KEEPS HANDS FACE & ARMS SOFT & SMOOTH
HANDAY CORP. NEW YORK, N.Y.

For cover story see p. 101

March 1948

vR v.21 2 March-Aug. 1948

"What's your attitude?"



TOWARDS SOMETHING THAT'S REALLY NEW IN ADHESIVES?

The reason we ask is this: Many amazing product improvements have resulted from applying new "RESYN"* adhesives to packaging, converting and assembling operations previously thought to be at their highest level of efficiency.

"RESYN" adhesives provide higher resistance against all forms of moisture and temperature variations . . . adheres a wider variety of surfaces . . . offer a greater protection against vermin, mould, age . . . and add definite sales advantages to the finished product.

Successful "RESYN" adhesives are now used for: *Carton making* – with foil and varnished stocks in folding box machines. *Coffee bag making* – with special glassine, novelty bag and coated stocks. *Casket making* – for adhering cloth to metal, cloth to wood and cloth tufting. *Labeling* – on difficult varnished stocks. *Tube winding* – on ordinary and powder tubes. *Permanent identification of outdoor packages* – for all-purpose, all-weather labeling and overcoating on wood, fiber, painted steel, tin and glass. *Wood working* – to permit joint assembly operations to be handled and machined after 30 minutes clamping time. *Book making* – for high speed gluing-off, lining-up, case making, casing-in, tipping-in, padding, case sealing and labeling. *Paper drape making* – for seaming.

*Reg. Trade Mark

National ADHESIVES

Offices: 270 Madison Avenue, New York 16; 3641 Washtenaw Ave., Chicago 32; 735 Battery St., San Francisco 11; and other principal cities.
In Canada: Meredith, Simmons & Co., Ltd., Toronto and Montreal.
In England: National Adhesives, Ltd., Slough.

EVERY TYPE OF ADHESIVE FOR EVERY INDUSTRIAL USE

Me? **I'm open minded! I would like to know more about "RESYN" adhesives**

MR._____

COMPANY_____

STREET_____

CITY_____ ZONE____ STATE_____

Tech.

EFFICIENCY is the ability to do a job well, plus the desire to do it better—a characteristic of men and organizations that are leaders in their fields. Efficiency is indispensable to success and inseparable from it. To deal with those that have a background and record of efficiency is to increase your own. Phoenix Metal Cap Co., Chicago 8 and Brooklyn 18.

Modern packaging

Vol. 21 No. 7 March 1948

GENERAL

Metal-clad cigarettes 95
First basic change in 40 years; a single sheet —aluminum inside and out—forms a package with greater protection and eye appeal.

This month's Cover Package 101

Polyethylene closures 102
New flexible plastic with high chemical resistance provides low-cost solution to many closure problems.

Cooperative marketing 107
Two great names—Gerber and Armour—combine skills to pack and sell meat for babies.

Tomato pre-packer 108
Walter Holm backs up his faith in pre-packaging trend by building trade's biggest, most modern packaging plant on Mexican border.

Flame-sealed visibility 112
Edelmann's brass fittings, packaged in tough polyethylene bags fabricated and sealed on special equipment, are displayed by jobber in clear polystyrene stock drawer.

New Cry-O-Vac 115
Oriented protective film offers a highly protective shrink-wrap, applied semi-automatically to frozen poultry, meats and other foods.

Design Histories 119

Tree-ripened peaches 122
Cell-type box scores again in N. J. experiment; proves that premium market exists for better peaches properly protected by packaging. By JOSEPH F. HAUCK.

Laminated blanket box 125
Die-cut trademark permits visibility, board gives strength to St. Mary's package.

Moisture locked in 126
Richmond-Chase development marks a significant advance in product protection with an all-paper package.

Packaging Pageant 130

Automatic for olives 134
Machine that fills by weight eliminates overpack, saves more than its cost in a year.

Simplified procedure 137
Victor Gasket cuts out box-making department and saves 50,000 sq. ft. of floor space, streamlines packaging operation and achieves new sales impact. By WILLIAM F. VICTOR.

Display Gallery 140

Design dynamics 142
Gobelin packages illustrate a redesign plan that takes environment into account for total dynamic effect. By EGMONT ARENS.

TECHNICAL

Grease resistance 147
Report on a modification of TAPPI test method, with ratings for various packaging materials. By C. G. LAVERS.

Aluminum foil 150
II. Structure of foil packages. Data on moisture-excluding efficiencies of closures. By JUNIUS D. EDWARDS and D. B. STROHM.

Questions and Answers 154

DEPARTMENTS

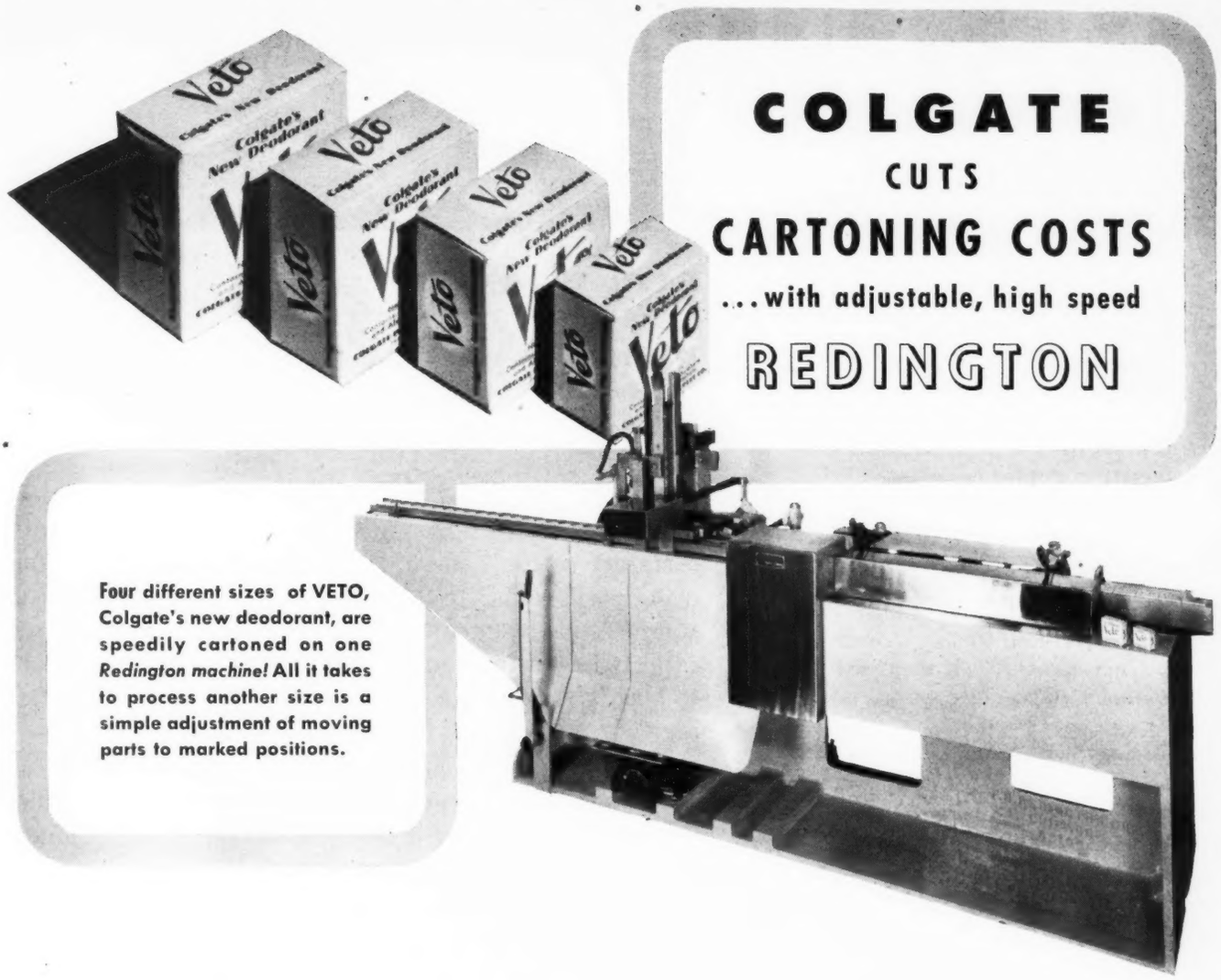
Equipment and Materials 156

Plants and People 164

For Your Information 172

U. S. Patents Digest 180

COLGATE
CUTS
CARTONING COSTS
...with adjustable, high speed
REDINGTON



Four different sizes of VETO, Colgate's new deodorant, are speedily cartoned on one *Redington machine!* All it takes to process another size is a simple adjustment of moving parts to marked positions.

Machine pictured above is one of several that was designed especially for Colgate Palmolive Peet Co., of Jersey City, N. J. Through it, in rapid, continuous line, go jars of VETO for cartoning. They travel into machine on intake conveyor belt, and then are inserted into cartons, which are fed from magazine and expanded. Cartons are closed by tucking in the end flaps. Machine is equipped with code mechanism for pressing code into flap of carton.

Like all Redingtons, this Type 23 High Speed Continuous Loading Cartoning Machine has turned and ground shafting, self-aligning roller bearings, vari-speed drive, and many other features that make for smoothly efficient packaging.

It was possible, however, to simplify and streamline these Redington units for Colgate, because of the simplicity of the package produced. This resulted in less mechanism with no sacrifice of packaging speed, and saves on cartoning costs. It is another illustration of how Redington builds to customers' requirements to give them the finest in cartoning at a minimum expense.

Our 51 years of solving packaging problems are at your service. Write or call today for further information.

F. B. REDINGTON CO. (Est. 1897) 110-112 S. SANGAMON ST. CHICAGO 7, ILL.

1897 REDINGTON 1948
51 Years of Packaging Leadership

AUTOMATIC CARTONING • WRAPPING • SPECIAL PACKAGING

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FAIR WARNING

DURING THE YEAR ended June 30, 1947, the number of actions brought by the Food and Drug Administration for packaging violations decreased some 25% as compared with the previous year.

This decrease, we are told by the FDA, was not due to any sudden drop in violations, but rather to uncertainty of the Federal courts as to their jurisdiction over merchandise that had gone bad after interstate-commerce movement had ceased. This doubt, it is expected, will be resolved by supplemental legislation to clarify the statute, which Congress is now considering.

Protection of the consumer was the intent of Congress in adopting the Act of 1938. Unfortunately, the "minority fringe," as it is called by the Commissioner of Food and Drugs, is active enough in evasion practice and direct violations to make trouble out of all proportion to its numbers. "In fairness," says the Commissioner in his report for the last fiscal year (now on press), "it must be stated that the record of violations presented in this report is not an indictment of the majority of American producers and handlers of foods, drugs and cosmetics."

In fairness, too, the average business man will admit that the Food and Drug Administration does not conduct witch hunts, but interprets and applies the regulations with reasonableness and judgment. But it must not be supposed that this reasonable attitude indicates any weakness on the part of the FDA. To the contrary—and very properly—the FDA says it will "unrelentingly invoke the legal remedies provided by the statute to control violative actions by that small proportion of industries which, through negligence, ignorance or deliberation, ignore the requirements of the law to the detriment both of the consumer and the ethical manufacturer."

The Editors

CAN YOU LOAD

FOR 169/1000 OF 1¢...

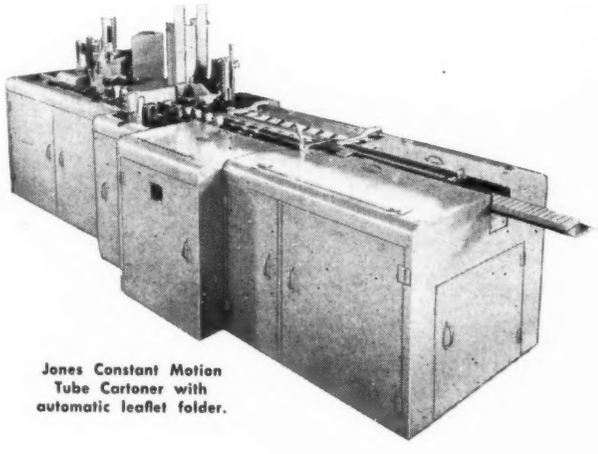
and maintain a steady rate of 8500 perfect packages per hour?

Jones Constant Motion Tube Cartoners feed and fold a leaflet, feed and open the carton, gradually insert leaflet and tube into the carton, close and tuck both carton ends—at an average rate of 8500 or more packages per hour!

These machines reduce unit loading cost to *169 thousandths of one cent* per package — including wages, depreciation, power and maintenance.

Jones Cartoners fold leaflets automatically, precisely. Cost of pre-folding leaflets is eliminated—storage problems are substantially reduced.

Compare Jones Cartoning with your methods—compare costs, too. Write today for complete information, enclosing samples of your product.



Jones Constant Motion Tube Cartoner with automatic leaflet folder.

R. A. JONES & COMPANY, INC.

P. O. Box 485 CINCINNATI, OHIO

THE MAJORITY OF AMERICA'S CARTONED PRODUCTS ARE JONES CARTONED

You Have A Proposal

To packagers of free-flowing and semifree-flowing dry products we make this proposal: Tell us what products you want weighed and filled more accurately at high speeds. We'll tell you whether the answer is our new Hy-Tra-Lec automatic net weigher.

This new method of weighing called Hy-Tra-Lec is based on the principles of "positive displacement". Customers report accuracies at high speeds previously unattainable with a single weighing unit. Range is one-half ounce to 16 ounces.

Say "yes" to this proposal. Get the jump on competition. Get the WRIGHT story now.

WRIGHT'S Automatic Machinery Company ★

Affiliated With Sperry Corporation
Durham, North Carolina

"Pioneers Since 1893 in Automatic Packaging Machinery"

Applicator made by Dorothy Gray.
Hycar part molded by Kirkhill Rubber Co.

THIS new lipstick applicator is made of HYCAR American rubber, improving the older-type brush applicator. This brush will never lose its bristles!

The designer had an idea—and from his idea may grow others for improving products or creating new ones. Certain definite characteristics of HYCAR met perfectly the requirements for the lipstick applicator. The tip is flexible, and is resistant to grease and oils. Unlike many types of rubber it takes well to color, brilliant or delicate. And finally, it is easy to process. Even in very small molds such as the one used for this product the work can be precise, craftsmanlike, and beautiful.

Versatile HYCAR American rubber has many qualities which make it desirable throughout industry. Latices of HYCAR may be used as impregnants for paper or cloth —or as adhesives in a wide range of applications. Its resistance to heat and cold, weather and wear, mean that it is among the most versatile of modern products.

We make no finished products from HYCAR—or from other B. F. Goodrich Chemical Company raw materials. However, we'll be glad to work with you on any special problems or applications. For more information, write B. F. Goodrich Chemical Company, Dept. S-2, Rose Building, Cleveland 15, Ohio. In Canada: Kitchener, Ontario.

Hycar
Reg. U.S. Pat. Off.
American Rubber

B. F. Goodrich Chemical Company
A DIVISION OF THE B. F. GOODRICH COMPANY

GEON polyvinyl materials • HYCAR American rubber • KRISTON thermosetting resins • GOOD-RITE chemicals

REPEAT BUSINESS IS NEVER BUILT BY FOOLING THE CUSTOMER

Integrity in *all* things is a distinguishing characteristic of a dependable firm. It is, in fact, nothing more than just plain good business . . . if the management has an intelligent long-term view of customer relations.

Lowe Paper Company is proud of its box board products. But it is prouder still of its exceptional record of steady repeat business . . . of Ridgelo's big roster of customers whose orders run back for years in unbroken sequence.

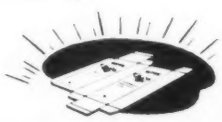
For packages that are *uniformly* efficient in production, *uniformly* economical in filling operations, and *uniformly* smart in appearance, there's nothing finer than Ridgelo clay-coated box board. It is *custom-made* to each customer's individual requirements, and it's *same-way-made* on each repeat order.

SOME NOTABLE CHARACTERISTICS OF RIDGELO CLAY-COATED BOX BOARD

The regular formation and even thickness of Ridgelo assures maximum efficiency in machine filling operations.

The perfectly-sized surface of Ridgelo means brighter, clearer printing . . . extra contrast . . . less ink consumption.

Colored types of Ridgelo, with light-fast integrated pigments, are truer than ink colors, cleaner and longer-lasting.



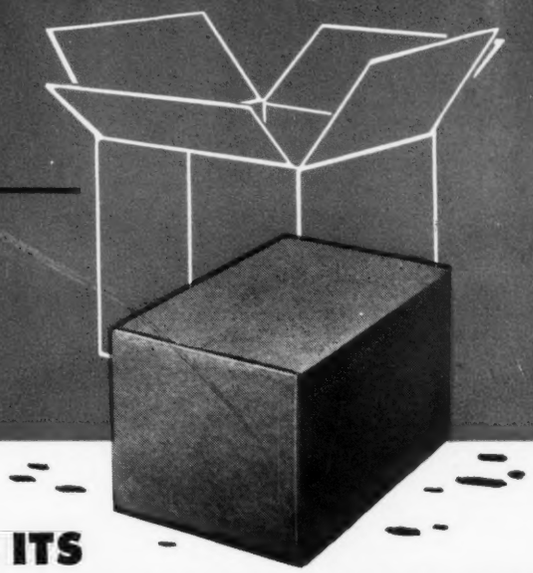
For application of varnish or lacquer, or use of gloss inks, No. 41 Finish Ridgelo assures maximum sheen, minimum discoloration.

Ridgelo CLAY COATED BOXBOARDS

MADE AT RIDGEFIELD, N. J. • BY LOWE PAPER COMPANY

Representatives:
H. B. Royce, Detroit
Norman A. Buist, Los Angeles
A. E. Kellogg, St. Louis
Philip Rudolph & Sons, Inc., Philadelphia

INTERESTED IN REDUCING YOUR SHIPPING COSTS?



PROTECT

YOUR CONTAINER AND ITS CONTENTS WITH FINDLEY'S SEALING ADHESIVES

Each year millions in damage claims are paid by shippers . . . perhaps you have even contributed to this total. You can reduce these costs now by using Findley Adhesives for sealing your containers and for securing your loads.

You KNOW you are sending out strongly sealed containers that will reach their destination safely and with tightly sealed flaps when you use Findley Adhesives. Findley Sealing Glues grab and hold with a grip that won't let go, because the flaps are "welded" together along the entire area of contact — not merely joined in a few spots. These "welded" ends mean additional resistance to falling, jarring, etc.

And that's not the end of your savings! You'll reduce costs on your actual sealing operations because of the speed and ease of handling — the speed with which you get a fibre tearing bond — and because there will be no containers popping open at the end of the compression line or when the weights are removed.

Findley offers a complete range of case sealing adhesives — tailored to all types of materials, production methods and conditions. Write, wire or phone today about any of your adhesive problems.

Findley's

INDUSTRIAL ADHESIVES exclusively

FINDLEY'S FIVE WAY ADHESIVE INSURANCE

1. Best available raw materials — careful check of these materials.
2. Extensive laboratory facilities for research, development and control.
3. Adequate — modern production facilities.
4. Skilled technical service keyed to study your problem in your plant, and make intelligent recommendations.
5. Over 45 years of SERVICE AND SATISFACTION to Industry.

PLANTS AT MILWAUKEE AND HOUSTON.

SALES OFFICES IN CHICAGO, KANSAS CITY, NEW ORLEANS, DALLAS, HOUSTON AND OGDEN, UTAH.

The F. G. Findley Company — 3045 West Pemberton Avenue — Milwaukee 10, Wisconsin

How to "Foil" your competition!

One of the pioneers in developing the use of printed Foil in consumer packaging, Milprint's creative staff and laboratory experts have produced highly successful Foil packages for many diversified industries.

Besides being highly protective, Foil has an extra eye-appeal that adds character to and highlights any product on the shelf. Witness the liquor bottle applications above. Why not let a Milprint packaging engineer discuss the possibility of Foil packaging for your product? He'll give you complete details at no obligation.

PACKAGES BY MILPRINT

Packaging Headquarters to American Industry

MILPRINT Inc. SALES OFFICES IN ALL PRINCIPAL CITIES

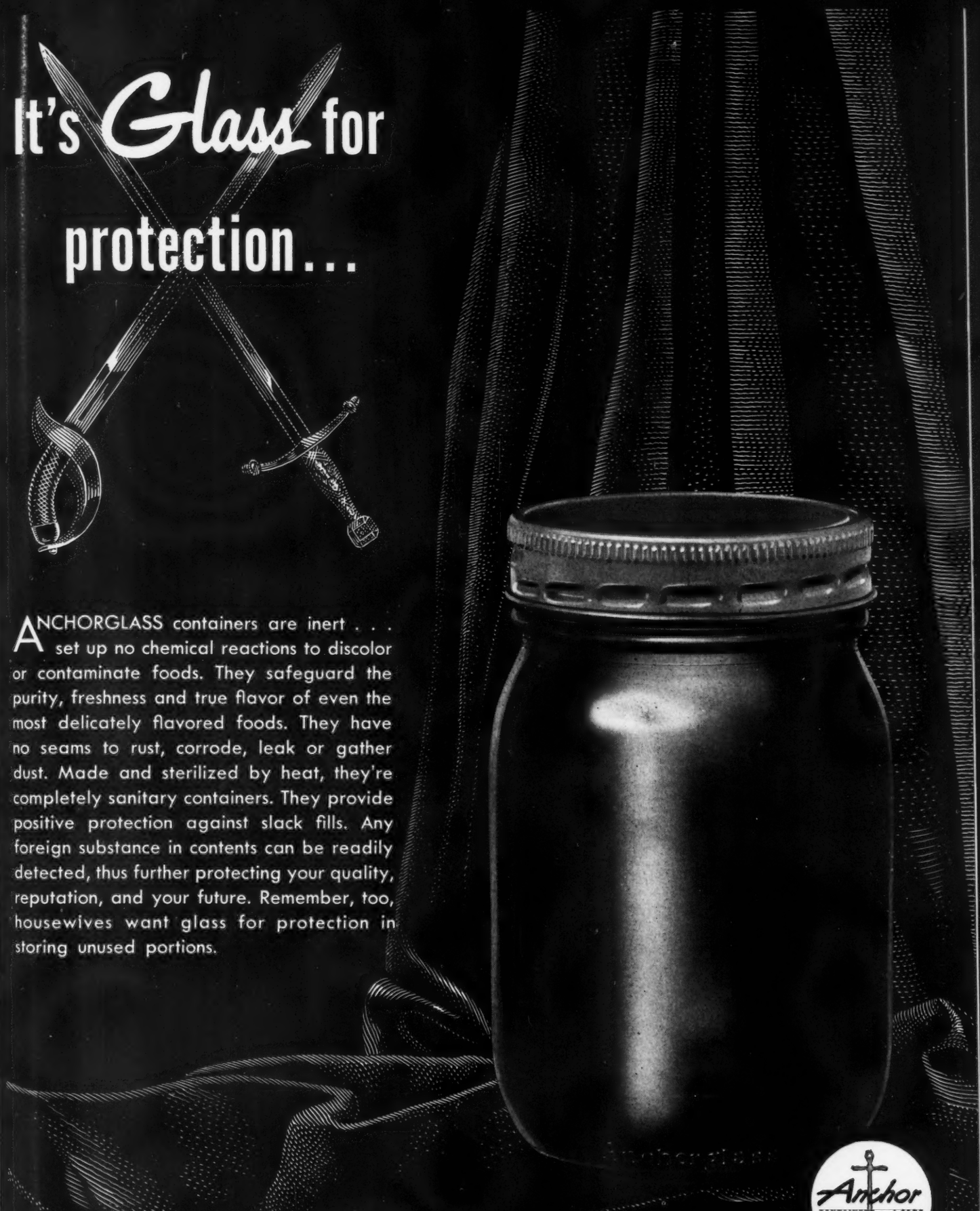
PACKAGING CONVERTERS • PRINTERS • LITHOGRAPHERS

plants at | MILWAUKEE, PHILADELPHIA, LOS ANGELES, CHRISTIANA, PA.
SAN FRANCISCO, TUCSON, VANCOUVER, WASHINGTON, STOUGHTON, WIS.

general offices: MILWAUKEE, WISCONSIN MILLS AT DE PERE, WISCONSIN

It's Glass for protection...

ANCHORGLASS containers are inert . . . set up no chemical reactions to discolor or contaminate foods. They safeguard the purity, freshness and true flavor of even the most delicately flavored foods. They have no seams to rust, corrode, leak or gather dust. Made and sterilized by heat, they're completely sanitary containers. They provide positive protection against slack fills. Any foreign substance in contents can be readily detected, thus further protecting your quality, reputation, and your future. Remember, too, housewives want glass for protection in storing unused portions.



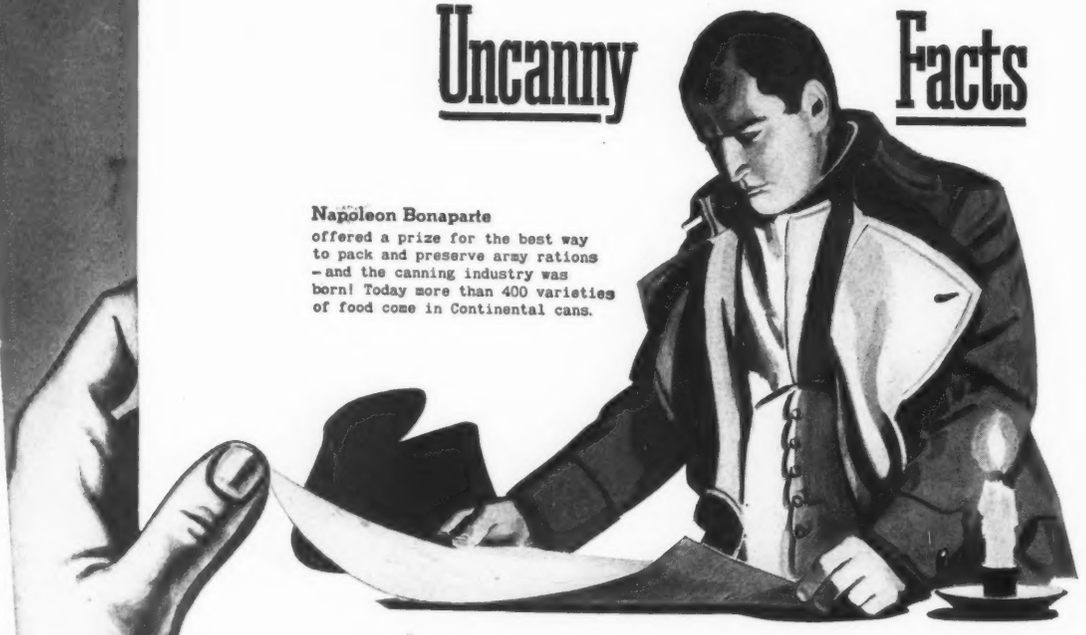
Anchor CONTAINERS and CAPS

PRODUCTS OF
ANCHOR HOCKING GLASS
CORPORATION
LANCASTER, OHIO

AND IT'S Anchorglass FOR MAXIMUM PROTECTION

"Crime Photographer", Thursday evenings, entire CBS network, sells all America on glass-packaged products.

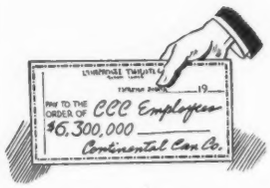
Uncanny Facts



Napoleon Bonaparte
offered a prize for the best way to pack and preserve army rations – and the canning industry was born! Today more than 400 varieties of food come in Continental cans.

La Guillotine in reverse!
CCC fibre drums holding 400 pounds of powdered material are dropped on a 2" x 6" plank from a height of 4 feet to pass rigid tests. The sturdy fibre body easily withstands the punishment.

Serving the public!
Continental's customer research staff makes more than 5000 visits a year to the packers of the food you eat. They advise on everything from crop control to latest canning procedures – helping to make good food better!



A big plus!
Continental's total contribution for benefits to employees, not including wages or salaries, is more than $6,300,000 a year!

Mister, you're an inch taller than your father—
an all-round healthier person, in just one generation. Imagine the improvement since Napoleon's time! Then, a well-balanced diet was unobtainable. Now, 400 varieties of food come in cans, in season and out!

Food cans are only one part of our large family of products. Others include paper cups and containers, fibre drums, plastics, bottle caps and cork products. That's why we say "the bigger the family... the better the service."

The bigger the family...

CONTINENTAL CAN COMPANY

the better the service

We hope this ad, now running in national magazines, will give you a broader and better picture of Continental. In *your* field, Continental's really in the picture with just about every size and type of container you could possibly want.

For example: "Tripletite" friction-plug containers, pails, square or oblong "F-style" cans – plain or lithographed with your own design.

do your CARTONS win customers

More people buy your brand if they *like your carton* . . . if it is easy and convenient to open, to use, to store . . . if it keeps your product fresh, clean, sanitary, undamaged. United can help you develop a carton that delights consumers . . . and wins applause from jobbers and retailers, too. Our packaging experts will gladly show you how United cartons can win you more contented customers. Write us today. There's no obligation.

UNITED BOARD & CARTON *Corporation*

285 MADISON AVENUE, NEW YORK 17, N. Y.

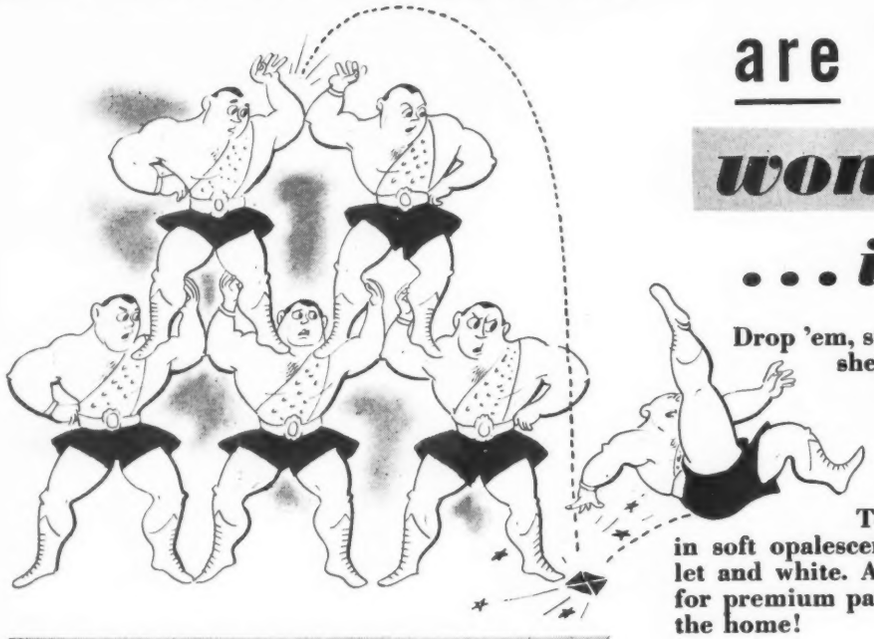
Board Mills:
Lockport, N. Y.; Thomson, N. Y.; Urbana, O.

Carton Plants:
Victory Mills, N. Y.; Syracuse, N. Y.; Brooklyn, N. Y.; Cohoes, N. Y.; Springfield, O

FROM PULP TO PACKAGE

TUPPER TUMBLERS are TOPS

won't break ... if they drop



Drop 'em, step on 'em, knock them off a high shelf onto a concrete floor, Tupper Poly-T tumblers are unbreakable—won't crack or chip. Flexible, virtually indestructible, they withstand temperatures from 70° below freezing to near boiling. Tough—but beautiful—and colorful in soft opalescent blue, lemon, orange, lime, violet and white. And you know how housewives go for premium packages they can put to daily use in the home!

with TUPPER SEALS

sealed sampler

At last, a way to present food samples at their best. 2-ounce jigger is airtight, watertight with Tupper Seal.

The Tupper Seal is also a coaster for the table or for the desk lunch.

they ring the bell

Bell-edge-all purpose tumblers come in 8-ounce size. Available with self-fastening, air- and liquid-tight Tupper Seals. Ideal for children, because Poly-T won't break.

they've got "AYE" appeal

9-ounce highballs made with miraculous Poly-T are completely unaffected by alcohol. Come in all colors.

tall (success) story

12½-ounce highball goes after profits in a big way. Feather-light, flexible, odorless, tasteless, non-toxic sanitary Poly-T.

5 ounces of versatility

Cheese, peanut butter, relish stay fresh, look better, taste better in these 5-ounce tumblers with self-fastening Tupper Seals. Poly-T will not absorb odors.

TUPPER GIVES YOUR PRODUCT THE PACKAGE THAT IS THE PREMIUM!

TUPPER

got a packaging problem?

Tupper creates all kinds of packages for all kinds of purposes — with and without self-fastening air-tight Tupper Seals.

Write for COLOR CATALOG C/O Dept. A

TUPPER CORPORATION, FARNUMSVILLE, MASSACHUSETTS • NEW YORK SHOWROOM, 225 FIFTH AVENUE

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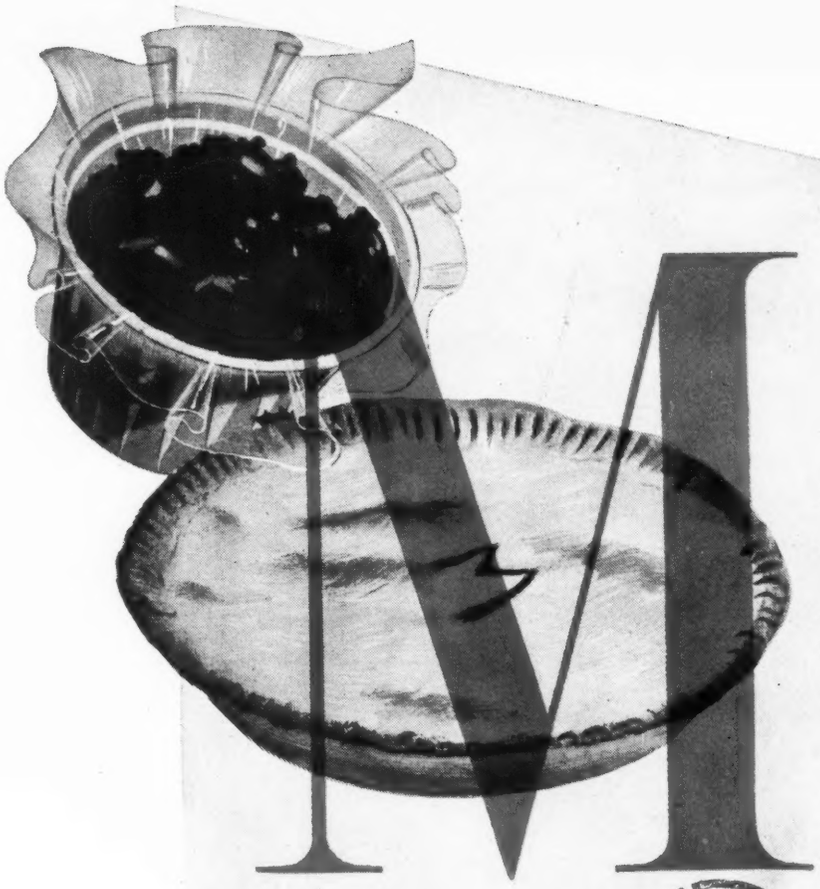
Primer of Packaging Perfection



M is for Mincemeat

JUICY

NEW PACKAGE FOR AN OLD FAVORITE – Old-fashioned, moist mincemeat, winey and fruit-rich, is now inexpensively packaged in glistening **PLIOFILM** – the only transparent film that is liquid-tight as well as air-moisture-proof. This triple protection seals in flavorous juices, keeps fruits tender and tasty, prevents evaporation and dryness. That's why everything packed in juice, from pickles to mincemeat, keeps better, tastes better, sells better – in **PLIOFILM.**

and for Marshmallows

FRESH

STRICTLY "SUPER" – Never have marshmallows kept such cream-puff fluffiness as those packaged in **PLIOFILM.** For this miracle film keeps them candy-kitchen-fresh for weeks; keeps them from becoming tough and rubbery. That's because **PLIOFILM** is air-moisture-vapor-proof. It locks in natural moisture, locks out dryness and contaminations. So marshmallows, melons, mushrooms, macaroons and many more, reach market at new peak of goodness – when sold in **PLIOFILM.**

3-way protection against air, moisture, liquids

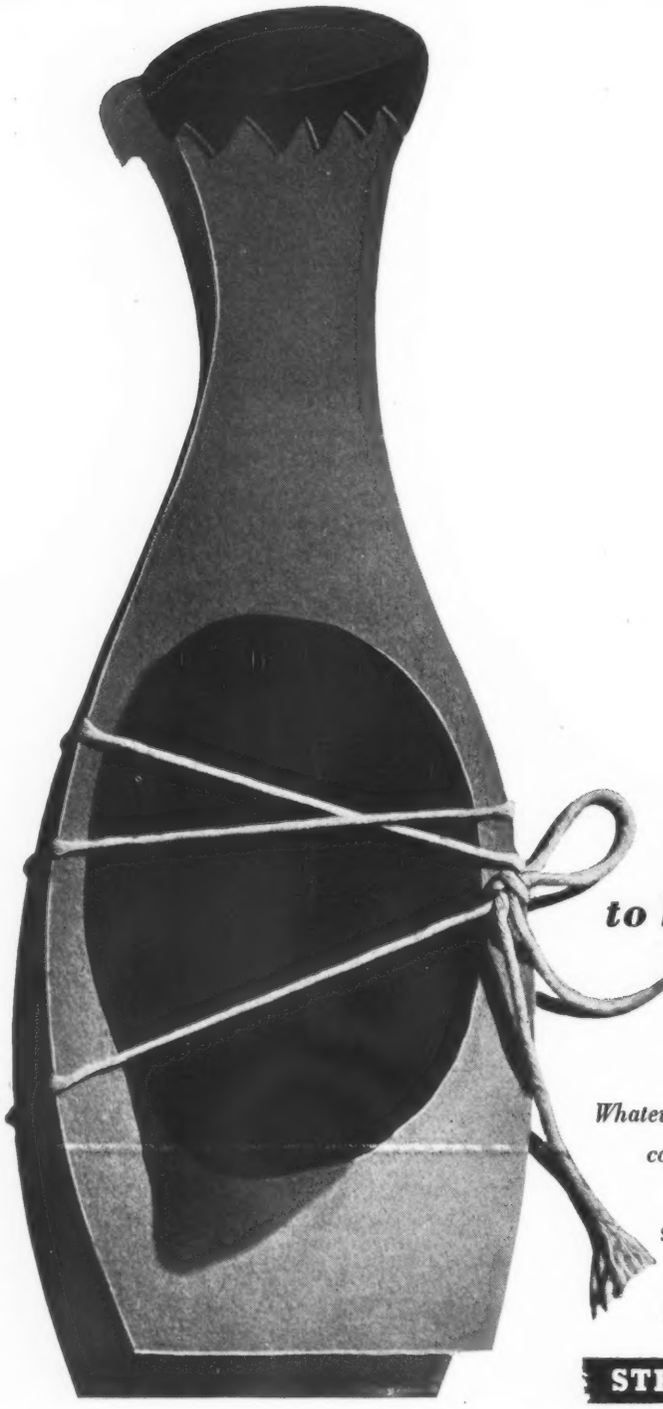
Everything is better in Pliofilm

1898 GOODYEAR 50 ANNIVERSARY 1948

GOODYEAR
THE GREATEST NAME IN RUBBER

THE ANSWER TO PACKAGING PROBLEMS – FROM A TO Z – Whether you're packaging aspirin, zwieback or any moisture-sensitive product, you'll benefit by **PLIOFILM'S** three-fold protection against air, moisture, liquids. You'll step up sales, too, because **PLIOFILM** protection is evidence of superior quality every shopper recognizes. For information, write: Goodyear, Chemical Products Division, Pliofilm Dept., Akron 16, Ohio.

Pliofilm—T.M. The Goodyear Tire & Rubber Company



this is one way to keep labels on...

...but STEIN HALL LIQUID ADHESIVES *do it much more effectively!*

Whatever your bottle labeling problems—
cold, wet, hot, greasy
or foil...
STEIN HALL'S *complete line of Liquid Adhesives assures you of the right answer.*
Write for quotations, samples and consultation.

STEIN HALL

285 Madison Avenue, New York 17, N. Y.

BOSTON • BUFFALO • CHARLOTTE • CHICAGO • CINCINNATI • DETROIT
LOS ANGELES • NEW ORLEANS • NEW YORK • PHILADELPHIA • PORTLAND, ORE.
PROVIDENCE • ROCHESTER • ST. LOUIS • SAN FRANCISCO • TORONTO, CAN.

Don't forget the American Management Association PACKAGING EXPOSITION, *April 26-30, Cleveland Auditorium.*

Sell Combinations

in

RIGID TRANSPARENT CONTAINERS of LUMARITH* FILM

Botany Brand Sweater & Skirt Kit—box by Shaw-Randall, Inc., Pawtucket, R. I. Rosalind 7 Panties Set—container by Rapid Cutting Company, Brooklyn, N. Y.

SETS . . . KITS . . . OUTFITS . . . PAIRS—the rigid transparent container made of sparkling Lumarith film is the effective way of selling more merchandise via the combination idea.

It tells at an approving glance what the contents are—and why
. . . is a persuasive salesman of the combination idea
. . . displays merchandise to best advantage
. . . looks quality . . . speaks for quality
. . . protects completely—before and after the sale
. . . has life-of-the-merchandise usefulness
. . . has important reuse value for consumer

When you consider the transparent rigid container in terms of your own products, chances are you'll discover many more competitive advantages this packaging method can offer. Get in touch with a Celanese representative for specific information. He can give you helpful data on actual cases, that you can apply to your business.

CELANESE CORPORATION OF AMERICA
Plastics Division—Dept. P-1
180 Madison Avenue, New York 16, N. Y.

*Reg. U. S. Pat. Off.

A Celanese* PLASTIC

DETROIT PUBLIC LIBRARY

Let PACKOMATIC help you perfect your package handling!

For Better Service Greater Earnings

Package handling—from carton forming and filling to shipping case gluing and sealing—ceases to be a problem where PACKOMATIC equipment can be adapted to the job at hand.

In fact, throughout more than a quarter of a century of efficient packaging machinery design and construction, J. L. Ferguson Company has refused to accept a package handling situation as a *problem*.

With PACKOMATIC designers, your packaging situation is a *project* to which years of practical experience with some of the world's foremost packaging goods manufacturers is quickly and intelligently applied.

The result may be an automatic top and bottom carton sealer—an automatic telescoping volumetric filler—an auger packer-weigher—or a net weight scale. Again, your particular situation may call for a PACKOMATIC Model D automatic shipping case gluer and sealer, or—if yours happens to be a low speed operation, where total volume is small—a PACKOMATIC hand glue belt compression sealer may be adequate.

Regardless, from your PACKOMATIC packaging consultant you can be assured of suggestions and recommendations that bring the right equipment to the job at hand.

If your own carton forming and filling—your own shipping case gluing and sealing operations—haven't been effectively mechanized, feel free to call on the PACKOMATIC representative nearest you or write Joliet. Consultation involves no cost and no obligation to buy.

Visit the PACKOMATIC display at Booth 408, Packaging Exposition, April 26-30, Cleveland Auditorium.

TYPICAL PACKOMATIC PACKAGING EQUIPMENT

Shipping Case Gluing and Sealing Equipment:

- Model D Automatic Shipping Case Gluers with Compression Sealers
- Combination Case Loaders & Side Sealers
- Hand Gluers & Compression Sealers.

Carton Filling & Sealing Equipment:

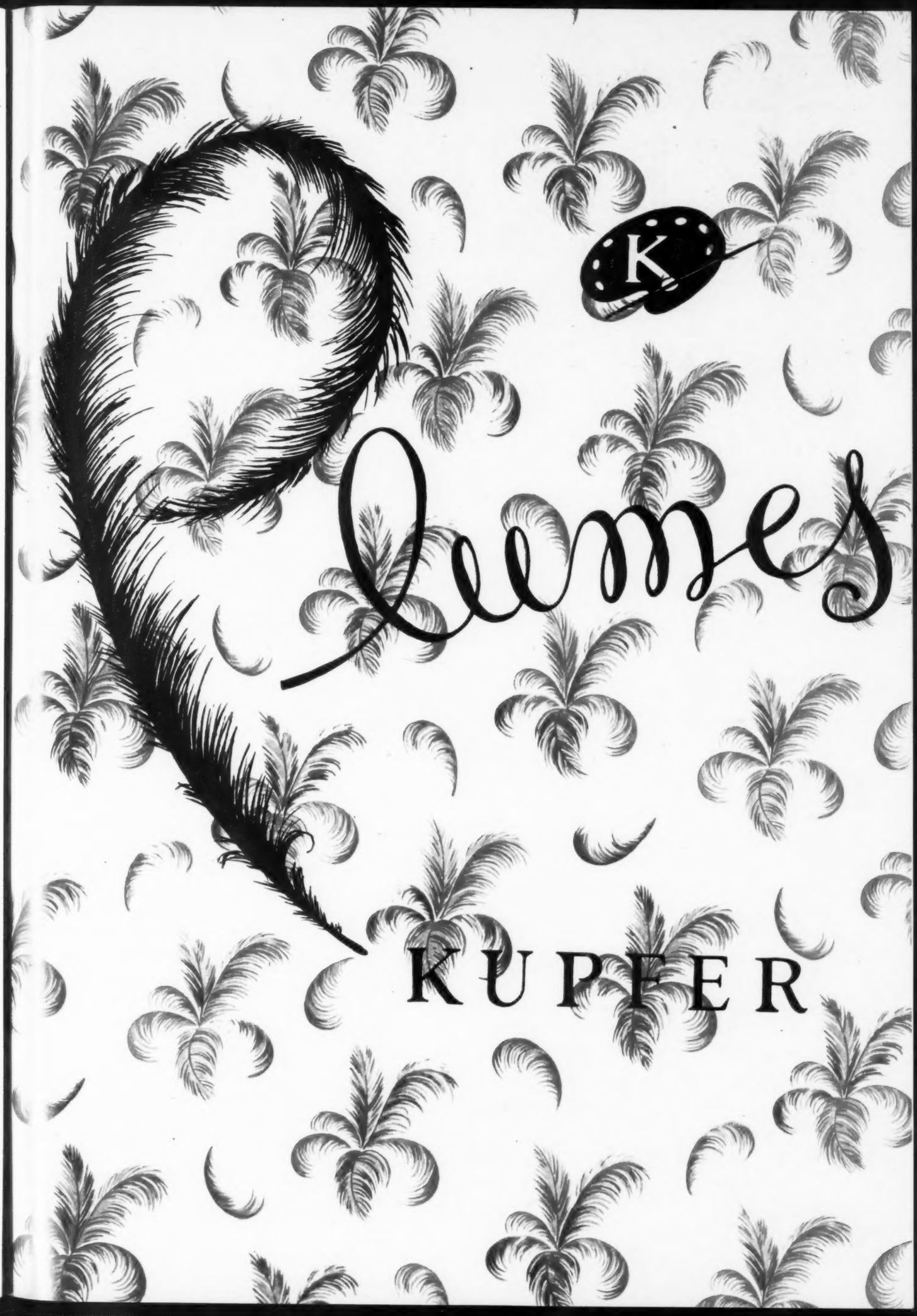
- Telescoping Volumetric Fillers
- Auger Packer-Weighers • Net Weight Scales
- Top & Bottom Sealers for individual & standard packages
- Automatic Case Imprinters
- Serial Numbering (Coding) Devices
- Paper Can cutters, gluers, shrinkers, cappers and conveying equipment

In addition to a wide range of standard and semi-standard packaging equipment, PACKOMATIC is also a dependable source for specialized packaging counsel, design, construction and installation, where unusual carton filling—or shipping case handling—situations present themselves.

PACKOMATIC

PACKAGING MACHINERY J.L. FERGUSON CO., JOLIET, ILL

Chicago • New York • Boston • Philadelphia • Baltimore • Cleveland • Denver • San Francisco • Los Angeles
Seattle • Portland • Tampa • Dallas • New Orleans


K
Lumes
KUPFER

Meet PLUME

THIS is the first appearance of PLUME, newest and most beautiful addition to the KUPFER line of decorative package papers for 1948.

PLUME needs no adjectives. It was designed to attract eyes, to create an impression of basic product worth and to look beautiful. We think you'll agree that it does all three jobs superbly.

PLUME is obtainable in a number of suave modern color combinations. We will have a reasonable inventory. Moreover, we've made arrangements to insure continuous replenishments from our mill.

Sample Shown, is our Plume =5001

Write now for free samples and prices

KUPFER BROS. CO.
4 ASTOR PLACE, NEW YORK 3, N. Y.

Manufacturers of Surface Coated Papers Since 1845

KUPFER BROS. PAPER CO.
145 West Hubbard Street
Chicago 10
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Southwest Representatives
MODERN PACKAGINGS
1214 S. Akard St.
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8334 West Third Street
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California

GRAHAM-JONES PAPER CO.
730 North Myrtle Ave.
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JELL-O
A GELATIN DESSERT
LEMON FLAVOR
a mixture of cane sugar, pure gelatin, added citric acid and fruit acid from grapes, pure fruit flavor and added vegetable color
.3¼ OZ. • NET WEIGHT • 92 GRAMS
AMERICA'S MOST FAMOUS DESSERT
FLAVORS
STRAWBERRY
RASPBERRY
ORANGE
LEMON
LIME
JELL-O GRAPE ICE— Boil 2 minutes ¾ cup sugar and 1 cup water. Remove from fire and dissolve 1 package Lemon Jell-O in hot syrup. Add 2 cups water, 1 cup grape juice and 2 tablespoons lemon juice. Turn into freezing tray of automatic refrigerator; set control for coldest freezing temperature. When partially frozen, turn into bowl; beat with rotary egg beater until fluffy. Return to tray and freeze, stirring every ½ hour until it holds shape, then freeze until firm. Freezing time: 5 to 6 hours. Makes 1½ quarts.
Directions for the New Improved Jell-O
Pour 1 pint (2 standard measuring cups) hot (not boiling) water. Place at once in refrigerator or other cool place; let stand until firm. Jell-O sets very quickly.
To unmold Jell-O, dip mold up to edge in lukewarm water. Hold mold and turn them very quickly. Lift off mold. Like fresh fruits, Jell-O is a delicate dessert which should be served as it contains a ferment which may be used. (Do not use fresh pineapple or canned pineapple which has been cooked.)
To whip Jell-O, chill dissolved Jell-O until thick like unbeaten egg white. Pile lightly into bowl and beat with rotary egg beater until thick and light. Jell-O's pure fruit flavors are kept fresh in sealed moisture-proof inner envelopes.

Sure it's GRAVURE

SURE IT'S BOARD STOCK. The idea that rotogravure is limited to thinner stocks is distinctly old hat. Champlain Rotogravure Presses print millions of these Jello cartons in a continuous operation from a fast-moving *web*. Yet Champlain Presses handle tissue-thin cellophane, difficult foils or glassines with equal ease.

SURE THERE'S FINE TYPE. On Champlain Rotogravure Presses, fine type, heavy solids and delicate tone work are reproduced with amazing fidelity to original art.

SURE IT'S DIE-CUT. The exclusive fully enclosed Speedry ink fountain permits Champlain Presses to use instant-drying inks and lacquers, to print in any number of colors delivering rewound or sheeted, ready for *immediate* fabrication. Or, fabrication steps may be performed *in line* through the addition of standard Champlain units that score, slit, perforate, apply glue, emboss, or punch—*all in a single, continuous passage of the stock.* Champlain's 360° running register control—*push button operated*—instantly corrects registration of color and in-line fabricating steps.

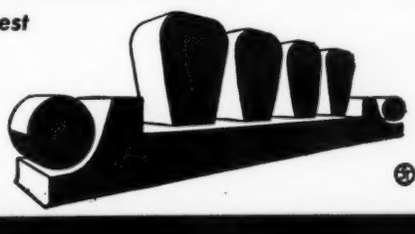
ALL THIS AND LOW COST TOO! For all its speed, versatility and long-known quality, gravure is low-cost, too—a *lot* lower than most people think, lower than processes that lack gravure's advantages. Why not send samples and production data today for a specific analysis of what gravure can do for you. Champlain Company, Inc., 88 Llewellyn Avenue, Bloomfield, N. J.

CHAMPLAIN

ROTOGRAVURE PRESSES

rotogravure at its best

Speedry



On rotogravure presses up to 36" width, the patented Weiss-Speedry ink fountain is an exclusive Champlain feature.

2858

Every shopper likes to see what she's getting

RETAIL SURVEYS show that people just naturally want to look before they buy. It's wise to satisfy this basic shopping instinct . . . and the right package can help you. Smart merchandisers have found that

Du Pont Cellophane *shows what it protects*
protects what it shows
. . . at low cost!

E. I. du Pont de Nemours & Co. (Inc.), Cellophane Division, Wilmington 98, Delaware

DU PONT

BETTER THINGS FOR BETTER LIVING
. . . THROUGH CHEMISTRY

Now in New York City, to serve the Metropolitan area, Matthias Paper Corporation, New York City address—Hudson Terminal Bldg., 30 Church St., Telephone—Beekman 3-4573. Mr. Robert F. Feuss is our sales representative. Inquiries and orders for decorated paper for packaging, box manufacture, labels, bookbinding, toys and novelties, etc. solicited. Matthias Paper Corporation main office 165 W. Berks St., Philadelphia 22, Pa., Telephone—Regent 9-5301. In New England, mail address—Box 127, street address—12 Brook Street, Wellesley, Mass., Telephone—Wellesley 0098M. In the South, address—Guilford Bldg., Greensboro, N. C., Telephone—Greensboro 3-3177.

Old Time Maple Flavor

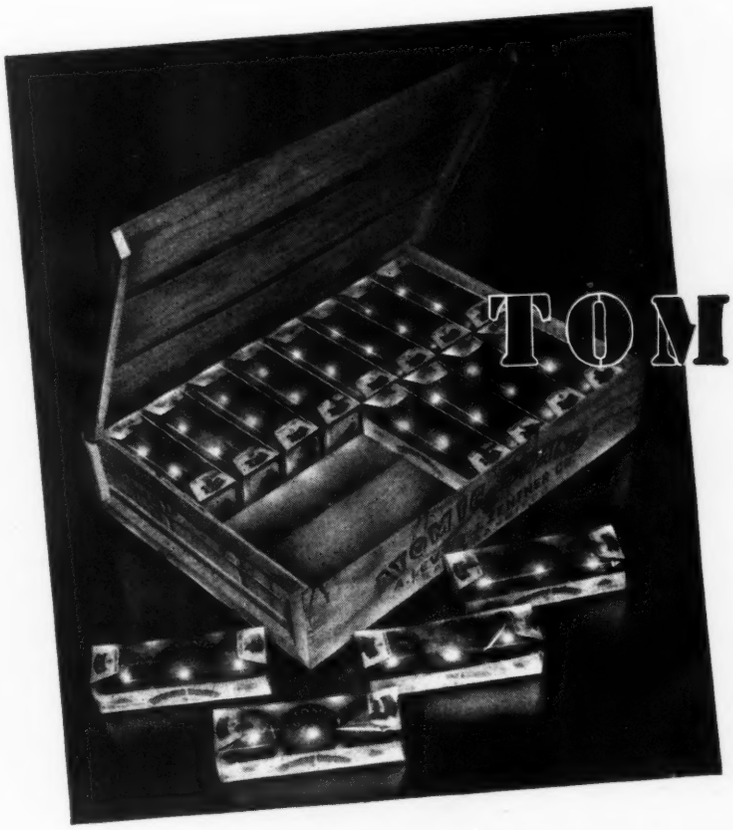
The first taste of Old Manse Syrup brings visions of cold mornings in Vermont woods, where cooking maple syrup is a fine art.

No less of an accomplishment is the Crown Screw Closure that Oelerich and Berry, packers of Old Manse Syrup, have selected as a seal for this product. Crown Closures are more than just metal caps. They're scientifically designed for sealing efficiency and economy on packers' production lines. Features, like the exclusive Deep Hook Thread construction and liners that have been developed for use on specific products, make them popular favorites with many well known "big brand" manufacturers from coast-to-coast. Crown Cork & Seal Co., Baltimore 3, Md. *World's Largest Makers of Metal Closures.*

CROWN CLOSURES

TRANSPARENT PACKAGE

by Traver . . .



TOMATOES

Delicate pinks or luscious, ripe reds radiate sales-appeal through Traver transparent packages. These eye-catching overwraps formed from Traver's expertly printed roll or sheet stock retain the glossy smoothness so necessary to an attractive consumer package.

The Atomic brand of Levy & Zentner has added power with Traver overwraps.

Crivella's "Select Pack" tells the story —smooth transparency of Traver packages allows selection of perfection.

Each tomato is clearly visible beneath Traver's carefully printed sales label No distracting wrinkles or smudges.

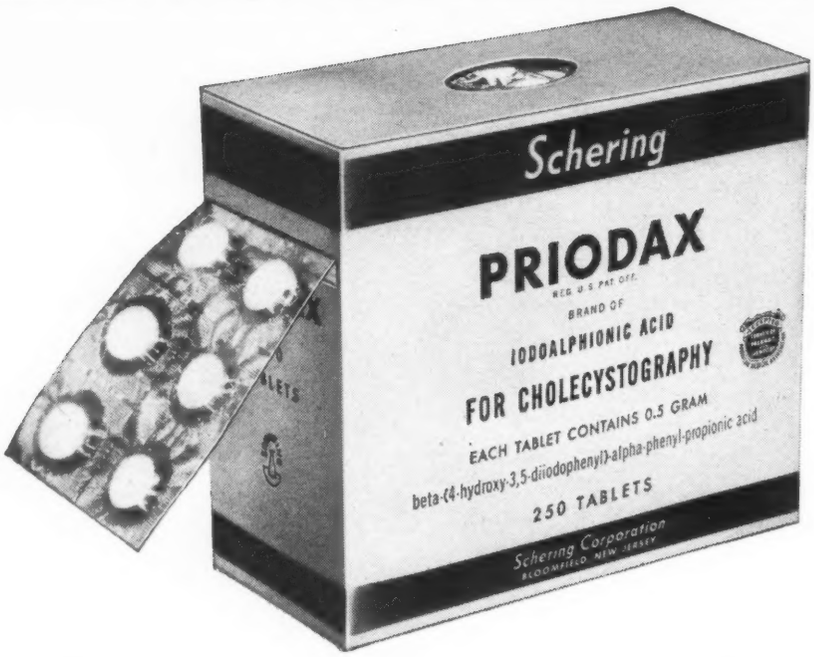
Photos show Traver transparent sales packages in actual use.

Traver CORPORATION

366 W. ONTARIO STREET • CHICAGO 10, ILLINOIS

CONVERTERS AND PRINTERS OF CELLOPHANE, PLASTICS, ACETATES, FOIL AND GLASSINE

A NEW PACKAGE— FOR THE BUYER'S MARKET OF '48



Sanitape-Sealtite CONTINUOUS STRIP PACKAGE

You can meet the challenge of today's market with this economical, functional and completely streamlined package — easily adaptable to your particular product and merchandising plan.

The Sanitape-Sealtite Continuous Strip Package, plus our Contract Packaging Division (we relieve you of every packaging detail) is a direct and practical "answer" to the pressing demands of '48. We shall be glad to give you details pertinent to your particular situation.

PROTECTION which is the basic function of packaging, is completely fulfilled—against dirt, handling, moisture and breakage—down to the last tablet, which is dispensed. The exclusive Sanitape-Sealtite method seals each unit in its own air-tight compartment.

ECONOMICAL PACKAGING is attained by layering a continuous strip of tablets, up to 500 if desired, in an ingeniously designed, cardboard container—which thus becomes a *complete* dispensing package.

CONVENIENCE in dispensing is a unique feature of this new package—whether the dosage be one or six tablets, it is easily and simply procured without touching or handling the remaining supply—"hospital" cleanliness which is so appealing both to the profession and the layman.

A NEW ADAPTATION OF *SANITAPE-SEALTITE*

IVERS-LEE COMPANY
NEWARK, NEW JERSEY
PACKAGES, METHODS AND MACHINERY FULLY COVERED BY U. S. & FOREIGN PATENTS

Sanitape-Sealtite is a unique method for packaging pills, tablets, capsules, creams and powders, by which each unit or unit dose is sealed in its own air-tight compartment—assuring convenience, protection and maintained efficacy.

Large, small, any size,

designed and produced

to meet your every requirement.

CHICAGO CARTON COMPANY

4200 SOUTH CRAWFORD AVENUE • CHICAGO 32, ILLINOIS

INKS that help solve Packaging Problems

Packaging in cartons, wrappers, boxes, bags, cans and tubes presents a variety of problems, some of which may be solved by the selection of an ink especially suited to the purpose.

Among the special inks made by the ink companies comprising General Printing Ink Division may be mentioned the following, each of which is particularly adapted to some packaging technique.

FOOD CARTONS AND LABELS

Hydry is a moisture setting ink for the food field. It dries quickly, permitting uninterrupted processing with no storage time needed for drying. Contains no oils to oxidize, and has no residual odor.

CANS, TUBES AND METAL CONTAINERS

Hard-Tex metal decorating inks are available for lithographic application. Coatings and varnishes for metal protection supplement the decorating inks.

TEXTILE BAGS

For fabric bags used in shipping sugar, flour, cement, and other loose products, there are special textile inks. These can be made so that the printing may be washed out if bags are to be reused by consumers.

WOODEN BOXES AND CRATES

Special inks for printing on wooden boxes, crates and covers.

ROTOGRAVURE INKS

For long run printing of labels, wrappers and folding boxes, rotogravure inks are economical and satisfactory.

METALLIC FINISH INKS

Silversheen and Goldsheen produce effects simulating metal surfaces, such as aluminum, copper, bronze and silver.

NON-SCRATCH AND GLOSS INKS

Glostone and SUveneer are particularly suitable for labels, wrappers and cartons likely to be subject to considerable handling and wear

INK FOR PLASTIC FILMS

For containers and wrappers made from plastic films, including vinyl resin dispersions, polyethylene, polyvinyl butyral and cellulose acetate. Each of these presents a somewhat different printing problem The inks are highly adherent and non-blocking, not tacky after printing. Films may be rolled or packed without sticking. Produced by Warwick Chemical Division.

For detailed information regarding any of these inks, you may consult any branch office of the General Printing Ink Division, or write direct to Packaging Ink Department.

GENERAL PRINTING INK DIVISION

100 Sixth Avenue, New York 13, N. Y.

Geo. H. Morrill • Sigmund Ullman • Fuchs & Lang • Eagle Printing Ink • American Printing Ink
E. J. Kelly • General Printing Ink Corporation of Canada, Ltd., Toronto, Ont.

Sun CHEMICAL CORPORATION

Beautiful RE-USE... GIFT CONTAINERS

Another GUILDCRAFT creation!

Ultra-deluxe round metal containers of highest value impression, yet surprisingly low cost . . . Now practical in large volume production with the new and exclusive* GUILDCRAFT process of "seaming in" of the embossed lid and decorated side band, with the metal as an integral part of the container assembly. There is *no* gluing on of band or lid with its attendant impermanence and other disadvantages.

*Pat. Applied For

Humidor with domed, beautifully embossed lid, in gold, and rich red leather-like side band . . . Fruit cake container in aluminum laminated lid and sides exquisitely embossed and antiqued in Italian Renaissance chased-silver design.

GUILDCRAFT containers enhance the quality and prestige of any product, lifting it into the "fine gift" category for the holidays, and giving immeasurable added return in years of good-will advertising thru their practical and long-lived after-use. They are of such beauty and substance they will never be thrown away, nor will they be relegated and lost to sight or comment in prosaic kitchen after-use. They rate the living room of *any* home, proudly displayed, proudly used, and proudly commented on.

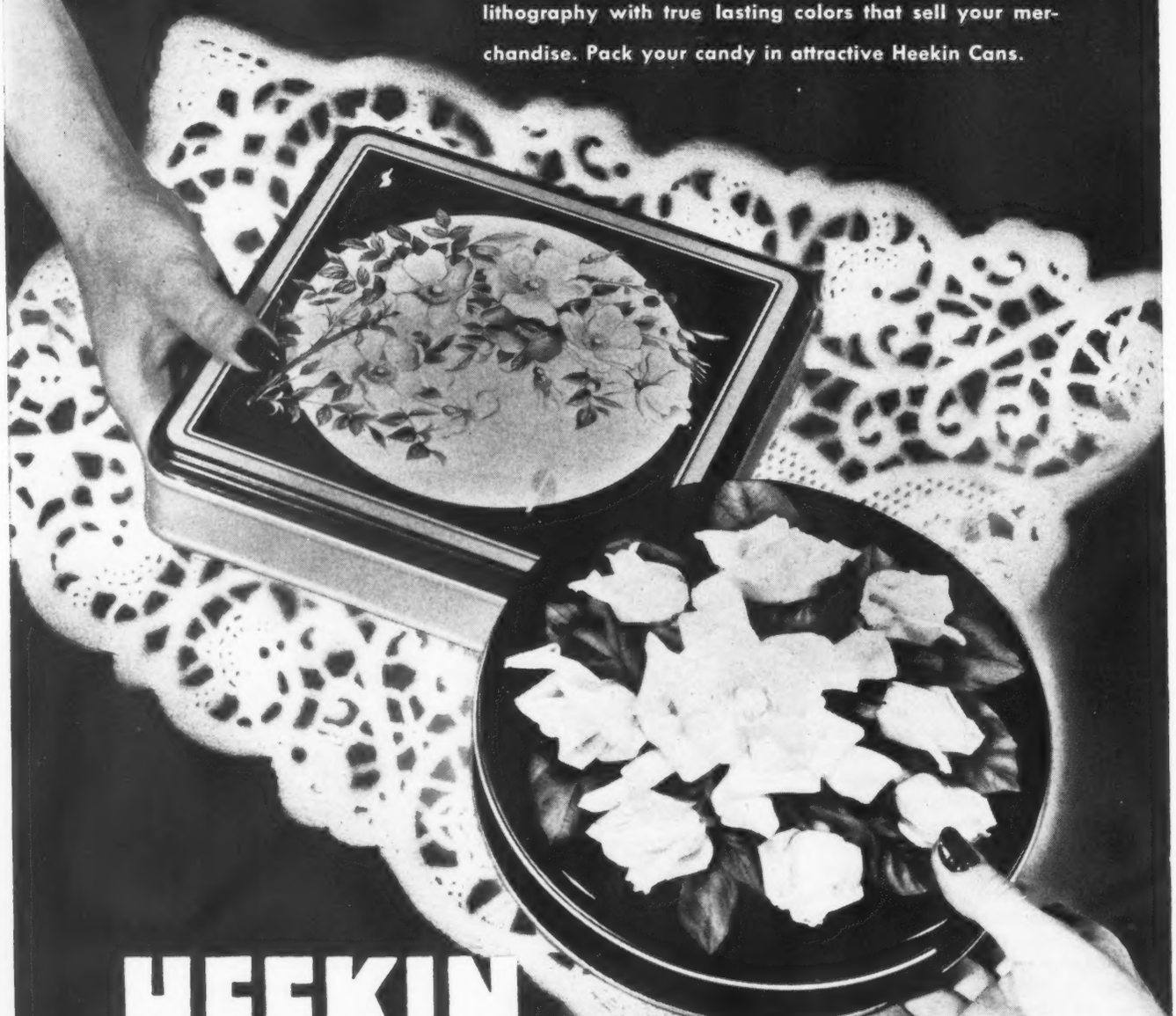
HE *Guildcraft* HALLMARK OF FINE PACKAGING

FREDERICK A. KRAUSE *and* ASSOCIATES

8 SOUTH DEARBORN STREET • CHICAGO 3, ILLINOIS

Beautifully Lithographed Cans Make Sales and Profits Soar . . .

BEAUTIFULLY lithographed cans for all types of confections, in strong colors, delicate pastels or true reproductions of fine art; all accurately reproduced by metal lithography with true lasting colors that sell your merchandise. Pack your candy in attractive Heekin Cans.



HEEKIN

Lithographed Cans

THE HEEKIN CAN CO. CINCINNATI 2, OHIO
EXPERT LITHOGRAPHERS OF METAL CANS SINCE 1901

DECOTONE
Presents

ORIENTAL WOODGRAINS

Tip-ons show four of DECOTONE's Oriental Wood Grains, basis 25 x 38 — 50/500. Available in rolls 26 in. wide, or in sheets 26 in. wide and lengths to your order. Write your nearest distributor today.

MADE IN U.S.A.

Charles W. Williams & Co., Inc.
303 Lafayette Street
New York 12, N. Y.

Chicago Paper Company
801 South Wells Street
Chicago 7, Ill.

Matthias Paper Corporation
165 W. Berks Street
Philadelphia 22, Pa.

Lachman-Novasel Paper Corporation
109-111 Greene Street
New York 12, N. Y.

DECOTONE PRODUCTS
DIVISION
Fitchburg Paper Company
PACKAGING PAPERS *Converted Papers* SPECIALTY PAPERS
FITCHBURG, MASS.

New ice cream carton set-up machine cuts costs, saves time

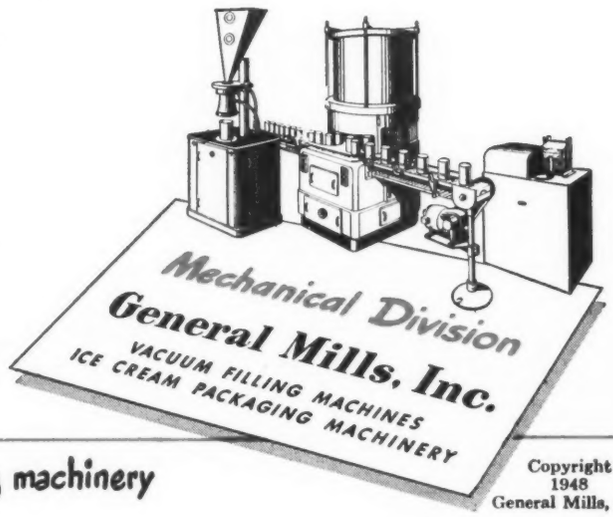
Developed by Frank D. Palmer, Inc., this remarkable new machine is now being manufactured and sold exclusively by General Mills. Soon to follow are other Palmer developments, including automatic units for filling and closing cartons, to make ice cream packaging completely automatic.

Ice cream makers for years have spent important money setting up cartons by tedious, costly hand methods. Now they'll save that cost with this automatic General Mills unit that does the job faster, more economically, under more sanitary conditions.

In other fields, too, General Mills is contributing to better, more economical packaging. For example, engineers have been trying for decades to develop a simple, speedy, accurate machine for filling containers with powdered materials. General Mills did it with its new Vacuum Filling Machine.

More developments are on the way—so that soon, many industries will benefit from General Mills' 25 years of experience in designing, building and *using* packaging machinery.

Watch for General Mills packaging machines that will cut costs and speed production for you. Meanwhile, if you want specific information on ice cream packaging machinery or the vacuum filling of powdered products, write Dept. Γ Mechanical Division, General Mills, Inc., 1620 Central Ave., Minneapolis 13, Minnesota.



One of the world's largest users of packaging machinery

Copyright 1948 General Mills, Inc.

Silverstitcher Cuts Carton Closing Time in Half

Read how mushroom packer uses Acme Silverstitcher to save on materials and labor . . . doubles production . . . makes a stronger carton unaffected by dampness

"Show us!" said the world's largest growers and canners of mushrooms.

An Acme Shipping Specialist had analyzed the packing operations of this company and advised an Acme Silverstitcher with Silverstitch wire for stitching the bottoms of shipping cartons. For years a fairly good carton had been sealed with glue. Nevertheless, an Acme Silverstitcher was installed in the shipping department and a trial was made.

Here is what this company wrote . . .

"...results were a surprise to us..."

"First, we found a saving in material and labor of approximately 30%. Second, we can stitch 100 cartons now in the same time it took to glue 50. Third, the staples give us a stronger carton unaffected by dampness. And fourth, our operators prefer the stitching to the old method of gluing. We recently installed another Acme Silverstitcher in our Hudson, N. Y., plant and the results are just as pleasing."

Significant savings like these are worth inquiring about. Ask an Acme Shipping Specialist to look over your packing and shipping operations without obligation. Or mail the coupon for more information.

STURDY PACKING FOR FINE FOOD SPECIALTY

Dampness no longer affects the sealing of the cartons in which these carefully grown and packed mushrooms are shipped. The Acme Silverstitched carton is stronger than before, costs less and can be made twice as quickly.

ACME STEEL COMPANY

NEW YORK 17 ATLANTA CHICAGO 8 LOS ANGELES 11

ACME & MORRISON
SilverStitchers
REG. U. S. PAT. OFF.

AND SILVERSTITCH BOX-STITCHING WIRE

Acme Steel Company, Dept. MP-38
2838 Archer Avenue
Chicago 8, Illinois

Gentlemen:

Send me your free booklet describing Acme Silverstitchers, and their applications.

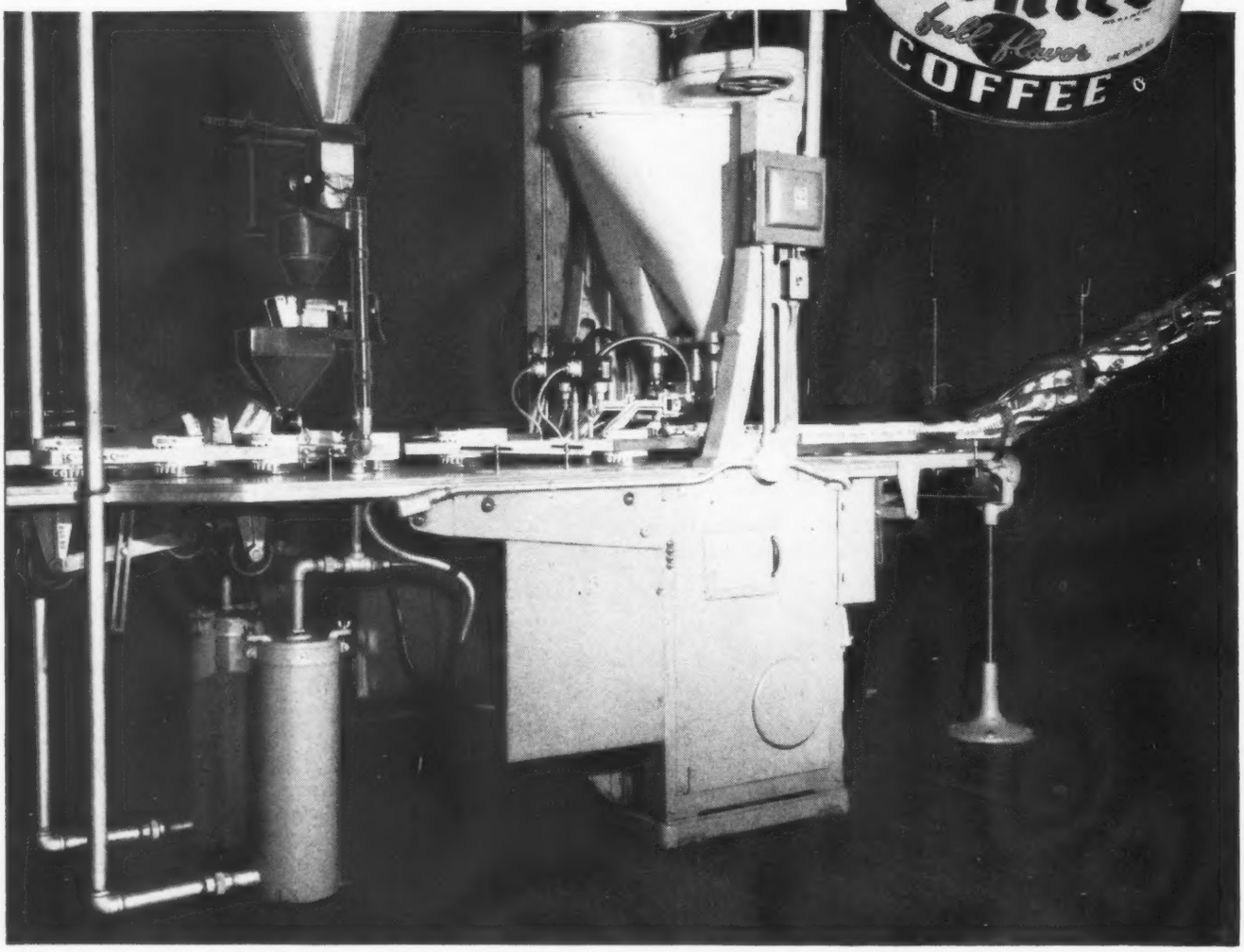
Name.....

Company.....

Address.....

City.....Zone.....State.....

Another S&S Installation



S & S Model HG-84 Duplex Automatic Filling Machine with Auger-Vac equipment for one pound cans of coffee.
The installation shown is at the Wm. Montgomery Co., Philadelphia.

THE MODERN WAY TO FILL CANS WITH COFFEE

FAST — CLEAN — ACCURATE

Cans are automatically fed on a conveyor to the filling heads where a vacuum is drawn on the cans. While the vacuum is on, the cans are filled (by auger feed) with the desired amount of coffee—and when the fill is completed, the cans are conveyed to the final vacuumizing and closing machine, ready for packing in cartons. Filling Machines can be supplied for various speeds.

15—50—100 per minute

Ask for complete details

Through the years, Stokes & Smith has been recognized as builders of "Better machines for better packages." If your products require wrapping, sealing, or filling in bags, boxes, cartons, bottles or cans, there is an S & S machine to do it swiftly—neatly—accurately.

STOKES & SMITH Co

Packaging Machinery — Paper Bag Machinery

FRANKFORD, PHILADELPHIA 24, PENNA.

FILLING • PACKAGING • WRAPPING MACHINES

Speeds to suit your needs — 15 - 30 - 60 - 120 per minute

Another "Best" in Ice Cream Packaging

MARATHON'S NEW LINERLESS CARTON

Marathon gave ... t linerless ice cream cartons a new stand-ard. Now Marathon offers a *new, improved* linerless carton combining packaging efficiency with sales making features!

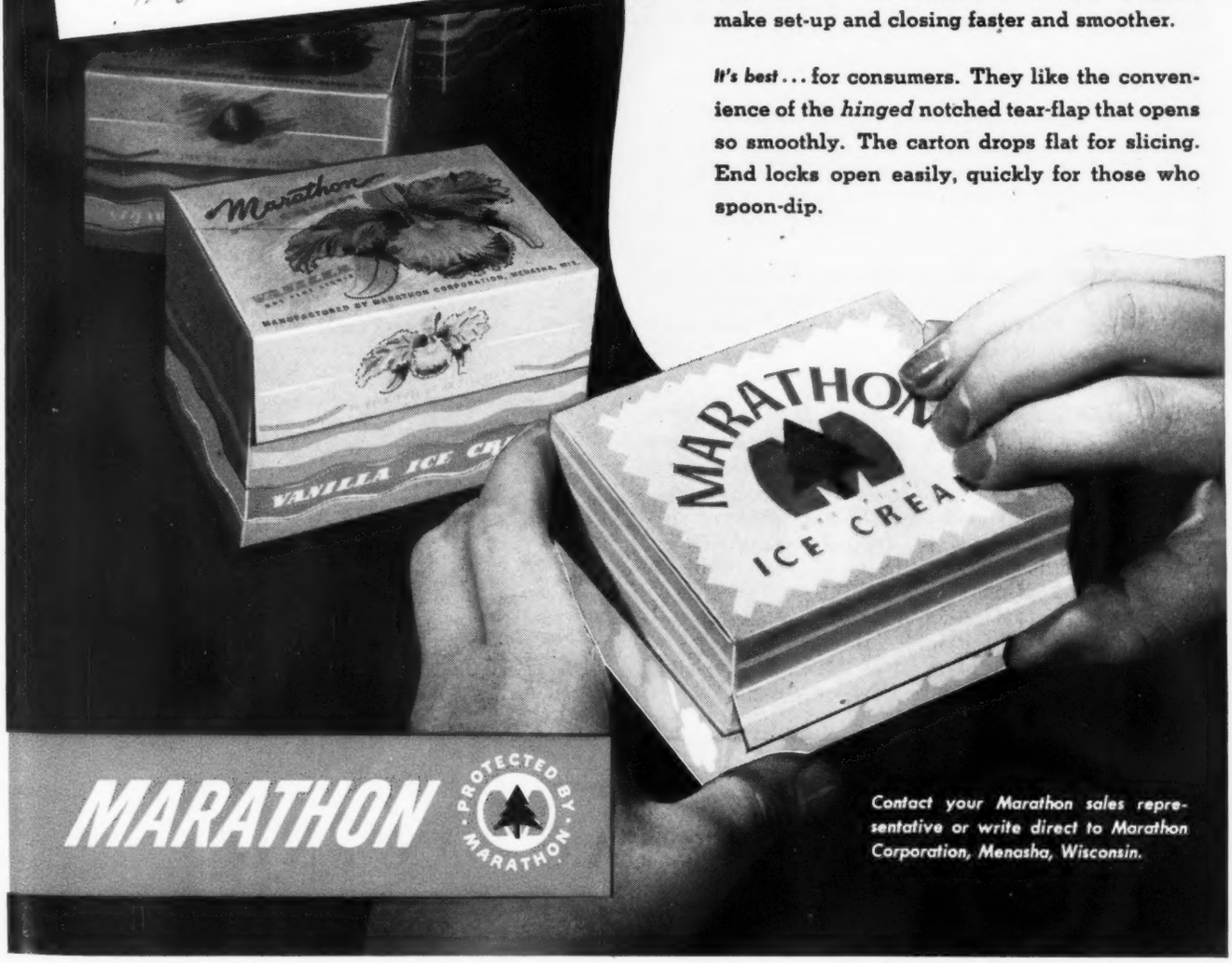
MEMO

This recent ad announced a new package to the ice cream industry. It's another packaging achievement by Marathon - specialists in protective packaging of foods.

***It's engineered*... for the rigid requirements of fully automatic line packaging. It works efficiently on *all* machines now in use.**

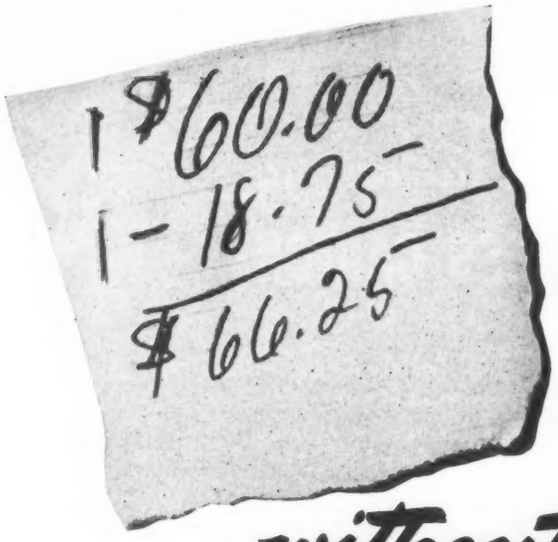
***It's fast*... for hand set-up operations. The new, improved end locks, plus the deeper scoring, make set-up and closing faster and smoother.**

***It's best*... for consumers. They like the convenience of the *hinged* notched tear-flap that opens so smoothly. The carton drops flat for slicing. End locks open easily, quickly for those who spoon-dip.**



MARATHON PROTECTED BY MARATHON

Contact your Marathon sales representative or write direct to Marathon Corporation, Menasha, Wisconsin.



How 19,000 companies up take-home pay *without upping payrolls*

Can you deduct $18.75 from $60.00 and get $66.25? *Yes.* And the way you can do it is mighty important to your company—and to the nation!

You start with $60, representing someone's weekly take-home pay. You deduct $18.75 for the purchase of a U. S. Savings Bond. That leaves $41.25. But $41.25 isn't what the worker takes home. He takes home $41.25 *plus a $25 Savings Bond.* Total (assuming he holds the Bond till maturity): *$66.25.*

WHAT 19,000 COMPANIES HAVE LEARNED

In the 19,000 companies that are operating the Payroll Savings Plan for the regular purchase of Savings Bonds, employees have been more contented in their jobs—absenteeism has decreased—even accidents have been fewer!

Those are the "company" benefits the Plan provides, in addition to extra security for individual employees.

But the Plan has other, far-reaching benefits of basic importance to both your business and the national economy...

SPREADING THE NATIONAL DEBT HELPS SECURE YOUR FUTURE

The future of your business is closely dependent upon the future economy of your country. To a major extent, that future depends upon management of the public debt. Distribution of the debt as widely as possible among the people of the nation will result in the greatest good for all.

How that works is clearly and briefly described in the free brochure shown at the right. Request your copy—*today*—from your State Director of the U. S. Treasury Department's Savings Bonds Division.

ACTION BY TOP MANAGEMENT NEEDED

The benefits of regular Bond-buying are as important today as ever—but war-time emotional appeals are gone. Sponsorship of the Payroll Savings Plan by a responsible executive in your company is necessary to keep its benefits *advertised to your employees.*

Banks don't sell Savings Bonds on the "installment plan"—which is the way most workers prefer to buy them. *Such workers want and need the Payroll Savings Plan.*

Those are the reasons why it's important to make sure that the Plan is adequately maintained in your company.

The State Director will gladly give you any assistance you wish.

"The National Debt and You,"

a 12-page pocket-size brochure, expresses the views of W. Randolph Burgess, Vice Chairman of the Board of the National City Bank of New York—and of Clarence Francis, Chairman of the Board, General Foods Corporation. Be sure to get your copy from the Treasury Department's State Director, Savings Bonds Division.

The Treasury Department acknowledges with appreciation the publication of this message by

MODERN PACKAGING

This is an official U. S. Treasury advertisement prepared under the auspices of the Treasury Department and the Advertising Council

what's in this LAMCOTE PACKAGE-IN-A-PACKAGE

EXTRA richness

EXTRA elegance

EXTRA protection

EXTRA selling power

REGULAR- OR WINDOW-TYPE PACKAGES

WRITE TODAY

LAMCOTE

THE TOUGH, LUSTROUS, TRANSPARENT FILM OF PLASTIC APPLIED BY OUR EXCLUSIVE PROCESS TO THE SURFACE OF PAPER, BOARD, FABRIC OR OTHER MATERIAL

EVERYTHING you need for a successful *selling* package (ideas, plans and production) is in this Arvey "package-in-a-package."

USE this complete service to bring you Arvey authoritative packaging counsel, expert, sales-minded design. Let this Arvey service take over every detail-headache in the production of a superior, finished package built to your specific product and merchandising plan. Get all this . . . *plus* LAMCOTE, the incomparable, extra sales allure . . . LAMCOTE, glamorous protection for the package . . . final persuasion to the eye!

WASTE NO TIME! Send us a sample of your product. T shirts to teddy bears, suspenders to screws, it will come back to you in a package planned for its character, designed for sales, cost-estimated for complete package delivery. No obligation. Mail it today!

ARVEY CORPORATION

3460 N. KIMBALL AVE., CHICAGO 18 • 303 COMMUNIPAW AVE., JERSEY CITY 4

B & P DISPENSERS ARE PRACTICALLY INDISPENSABLE

Whether it's a consumer package for home use, or a larger, permanent unit for the retail store—we build into it the qualities that produce added volume without additional selling expense—Scientific construction for precision functioning • Appealing "come-hither" design • Sturdiness—for long life. Let's analyze your problem together. It may prove to be a very rewarding conference.

BROOKS & PORTER, INC.

304 HUDSON ST. • NEW YORK 13 • N. Y.

KAGING & DISPLAY SPECIALISTS FOR THE "PRESS-THE-BUTTON" AGE

SYLVANIA® Bands

SYLVANIA DIVISION AMERICAN VISCOSE CORPORATION

Manufacturers of cellophane and other cellulose products since 1929

General Sales Office: 350 Fifth Avenue, New York 1, N.Y. *Plant:* Fredericksburg, Va.

SYLVANIA® CELLOPHANE

WIRZ applauds the public's quick response to P & G's new Prell Tube

"Radiant beauty in the handy new Prell Tube" is making an irresistible appeal to women (and men!) all over America. WIRZ congratulates Procter & Gamble on the successful launching of its new Prell Shampoo in a completely adequate sales package . . . one that performs three important functions . . . a quality tube that protects, adds convenience, and increases the sales appeal of the product. WIRZ is proud to have cooperated with P & G's engineers in developing the design as well as in the production of the new Prell Tubes.

Our staff will welcome an opportunity to work with you on your packaging projects. Write or phone us.

ESTABLISHED 1836
A. H.
WIRZ
Inc.

Fourth & Cole Sts. • CHESTER, PA.

New York 17, N. Y. 50 E. 42nd St. | Chicago 4, Ill. 80 E. Jackson Blvd. | Memphis 2, Tenn. Wurzburg Bros. | Havana, Cuba Roberto Ortiz Planos | A. G. Spilker, 1709 W. 8th St., Los Angeles 14, Calif. and Danville, Calif.

Export Division: . . 755 Drexel Building — Philadelphia 6, Pennsylvania

Collapsible Metal Tubes • Lacquer Linings • Wax Linings • Westite Closures • Soft Metal Tubing • Household Can Spouts • Applicator Pipes • Compression Molding

ROBERT GAIR ANNOUNCEMENT

About April 1, 1948, our new Kraft Liner Board Mill will come into production at Port Wentworth, Ga. This high speed modern Mill will supply the tonnage of Liner Board for fabrication into Corrugated Shipping Containers by the Nine Gair Box Plants located at

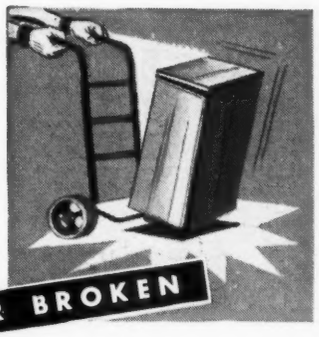
N. TONAWANDA, N. Y.	PORTLAND, CONN.
SYRACUSE, N. Y.	CAMBRIDGE, MASS.
UTICA, N. Y.	HOLYOKE, MASS.
NEW LONDON, CONN.	CLEVELAND, O.

PHILADELPHIA, PA.

ROBERT GAIR COMPANY, INC

NEW YORK • TORONTO

FOLDING CARTONS • SHIPPING CONTAINERS • PAPERBOARD

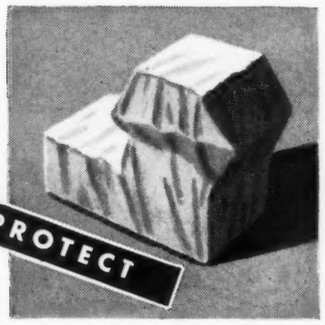


If your product

HAS A HIGH FINISH

IS EASILY DAMAGED OR BROKEN

IS DIFFICULT TO PROTECT



you need TUFFLEX

Tough interior packaging materials may be harsh and abrasive. *Soft* materials may be flimsy and hard to handle. But Tufflex—the new felted wood fiber—combines BOTH softness and toughness in a single material!

Light in weight and non-abrasive, Tufflex is soft as lamb's wool. But it *also* has the ability to take heavy impact blows, and it possesses a high degree of resilience. It is easily fabricated—cuts with clean edges and stays in place. Available in rolls and sheets of various thicknesses and widths, Tufflex is solving many of today's difficult packaging problems.

Described as "wood fiber felt blankets," Tufflex is approved as protective padding in the new Railroad Requirements for Furniture Packing (Supplement No. 32 to Consolidated Freight Classification No. 17). Get all the facts—mail the coupon.

TUFFLEX*

PROTECTIVE & CUSHION PADDING • THERMAL • SOUND

*REG. U. S. PAT. OFF.

MADE BY THE MAKERS OF *Balsam-Wool*

Wood Conversion Company
Dept. 208-38 First National Bank Building
St. Paul 1, Minnesota

Gentlemen: I want to know more about Tufflex. Please send me complete information.

Name.....

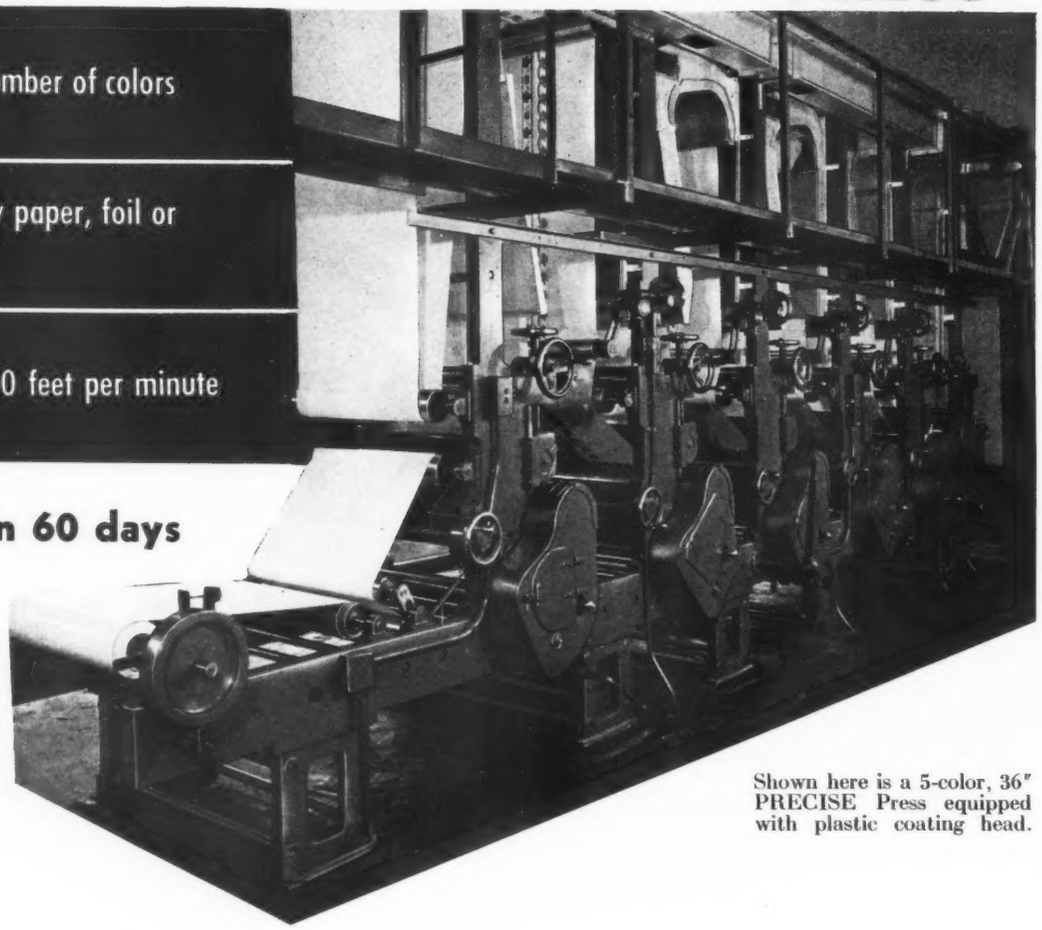
Address.....

City.....State.....

ALL-NEW *Multi-Color* GRAVURE PRESS

- prints any number of colors
- prints on any paper, foil or acetate film
- speeds to 500 feet per minute

Delivery within 60 days



Shown here is a 5-color, 36″ PRECISE Press equipped with plastic coating head.

HERE'S why the PRECISE* is the high-speed rotogravure press you've always wanted. It prints on almost any grade of paper—carton stock, foil, cellophane, glassine, waxing. It prints solid colors or halftones or combinations of both. It's fast—speeds of 400 to 500 feet per minute. It's accurate—not only is perfect register maintained at any speed, but motorized rubber pressure rolls automatically insure correct printing cylinder pressures.

And this press is *really* adaptable. You can easily interchange engraved cylinders of different diameters. With the addition of a special coating head, you can do plastic coating of any type. Other accessories allow you to do embossing, slitting, rotary die cutting, folding and sheeting.

This new rotopress comes in any cylinder width you need. Electronic registering equipment is optional. And here's a vital point . . . you can get delivery on standard sizes of this versatile press *within 60 days*. Prices are appreciably lower than those of other presses of comparable performance.

Write now to Dept. C for free descriptive bulletin.

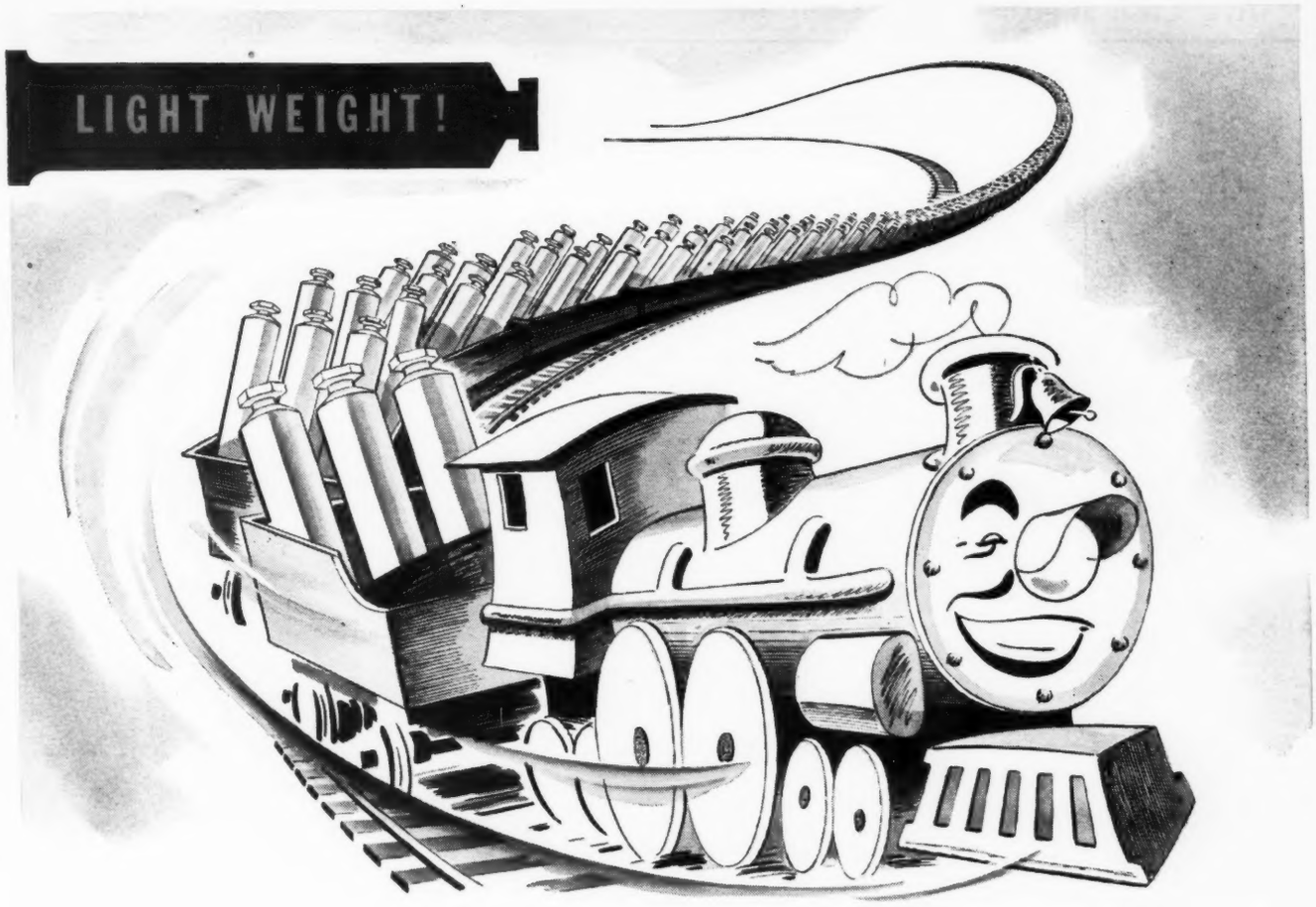
**Manufactured by The Precise Engineering Co., Chicago, Ill.*

GIBBS-BROWER COMPANY, Inc.

Agents

50 YEARS IN PACKAGING

21 East 40th Street — New York 16, N. Y.
Phone: LExington 2-5759 — Cable Address: GIBROW



Aluminum Tubes Cut Shipping Costs

However you ship—by rail . . . water . . . highway; across the street or around the world—aluminum tubes can lower your shipping costs. *Reason:* They weigh only *one third* as much as tubes of other metals. *Result:* Less dead weight, greater ease in handling—greater profit per item!

Interested? Then send us a sample of your product—we'll run exhaustive tests in our laboratory. We'll tell you whether your product is suitable for packaging in aluminum tubes—whether you can save money by adding an inhibitor. There's no cost or obligation on your part. Write to ALUMINUM COMPANY OF AMERICA, 2129 Gulf Bldg., Pittsburgh 19, Pennsylvania.

Package it in Aluminum

GREATER STRENGTH
NON-TOXIC
SMART APPEARANCE
EASY DISPENSABILITY
GOOD ECONOMY
LIGHT WEIGHT

ALCOA ALUMINUM

Near Crisis at Oxford Paper Company by Tony Barlow

DO NOT ENTER
FINALLY! OXFORD FAMILY FINDS SUCCESSOR TO CARRY ON TRADITIONAL SERVICE TO OUR CUSTOMERS FOR THE FOURTH GENERATION!

AMONG the basic reasons which account for the consistently high quality of Oxford papers is the long, carefully developed skill of its makers.

In many cases, three generations of Oxford workers have made a family "tradition" of serving the same customers, both printers and distributors. Two generations of the same family at Oxford are far from unusual. Many veteran papermakers have spent their entire lives at Oxford.

This fine craftsmanship is in addition to Oxford's extensive manufacturing facilities—to convenient and plentiful stocks of pulpwood — to *complete* control of all the production processes from start to finish. Taken together, they account for Oxford's almost fifty years of serving the same and new customers, supplying the finest quality papers.

Oxford papers are handled by leading paper merchants in key cities, coast to coast. The merchants are ready to discuss your printing problems with you — to assist you in securing quality and uniformity in your printing jobs, whether gravure, offset or letterpress. Consult your Oxford Paper Merchant whenever you need quality printing papers or practical assistance in getting better on-the-press results.

Included in Oxford's line of quality printing and label papers are: Polar Superfine Enamel, Maineflex Enamel Offset, Maineflex C1S Litho, Mainefold Enamel, White Seal Enamel, Engravatone Coated, Carfax English Finish, Super and Antique, Aquaset Offset and Duplex Label.

OXFORD PAPER COMPANY

230 PARK AVENUE, NEW YORK 17, N. Y.

MILLS at Rumford, Maine and West Carrollton, Ohio — *WESTERN SALES OFFICE: 35 East Wacker Drive, Chicago 1, Ill.* — *DISTRIBUTORS in 48 Key Cities*

There's an extra burst of sales speed in

Many a fast-stepping item can be given an extra burst of speed—*sales speed*—with an eye-compelling package!

That's just what BAKELITE Styrene plastics are doing for many types of merchandise . . . thanks to their own inherent properties and the imaginative use to which they are being put by leading designers.

Versatile, light in weight, strong, and capable of varied decorative treatments and effects, this modern plastic material may be quickly and economically molded into boxes, display cartons, stands, cases, almost any type of package for almost any type of consumer goods. All the colors of the rainbow are available. Re-use is often a plus factor. And always BAKELITE Styrene plastic presents a challenge to creative package and merchandising experts who like to "show what they are made of."

In many ways, BAKELITE Styrene plastic is the ideal modern material for packaging uses. Consult your plastics molder, or write Department 88 for the helpful guidance of BAKELITE plastics engineers in adapting this material to your specific packaging requirements.

Data courtesy General American Transportation Corp.

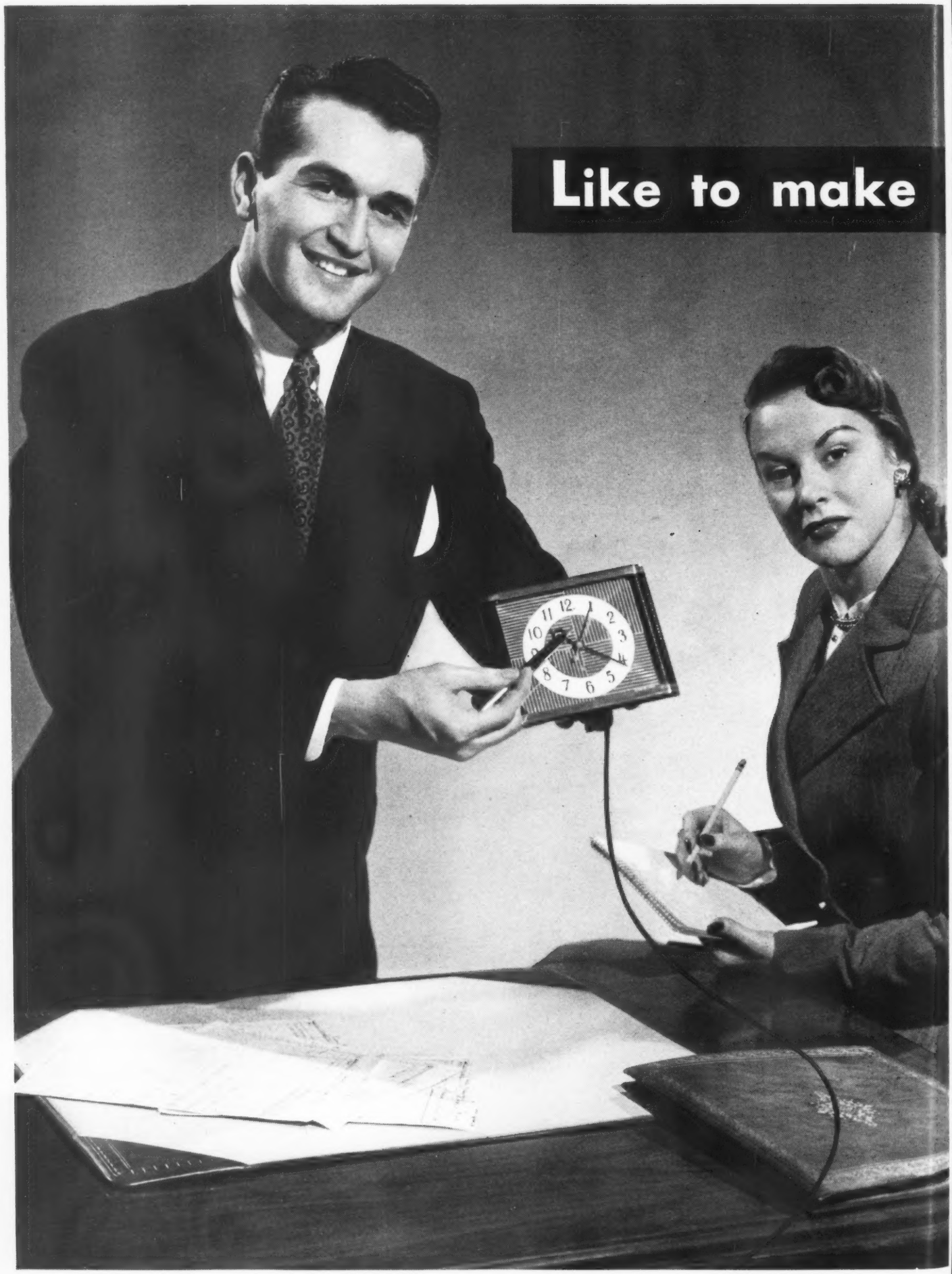
TRADE-MARKS

BAKELITE

Styrene

PLASTICS

BAKELITE CORPORATION, *Unit of Union Carbide and Carbon Corporation* UCC 30 East 42nd Street, New York 17, N. Y.


Like to make

your filling machines

work 65 seconds a minute?

THERE'S A GOOD CHANCE YOU CAN — WITH GARDNER-RICHARDSON CARTONS
THEY'RE PRECISION-ENGINEERED FOR EXTRA SPEED

Suppose you could get . . . in 60 seconds . . . the production you're now getting through your filling machines in 63, 64, or 65 seconds. Would that be worthwhile? Figure out what it would mean per hour, per day, per week.

Making high speed filling machines do more work per minute—through Precision-Engineering—is something we've been specializing in for a long time, here at Gardner-Richardson.

Some of the largest users of folding cartons in the country are well aware of this. They've seen what happened when Gardner-Richardson teamed up with their operating men to step up filling machine production.

Sometimes, what looked like a trivial change has made a tremendous difference. In almost every case, Gardner-Richardson's Precision-Engineered uniformity has been an important factor in better performance.

We don't promise miracles. But give us an opportunity to study your specifications, your cartons and your operations. We believe we may be able to come up with recommendations that will have your filling machines "working more than the usual 60 seconds per minute." Ask for a Gardner-Richardson representative to call. It places you under no obligation.

And remember **. . . More eyes reach for your product in cartons of COATED LITHWITE!***

Coated Lithwite is the quality clay-coated ~~board~~ . . . PLUS! Made the modern way, with an exactingly level filmed-on coating. Whiter. Brighter. Holds up colors brilliantly, reproduces pictures with true-to-life realism. Folds, bends better, too. More receptive to adhesives. Rub-resisting. Fade-resisting. For a practical way to upgrade your cartons investigate Coated Lithwite.

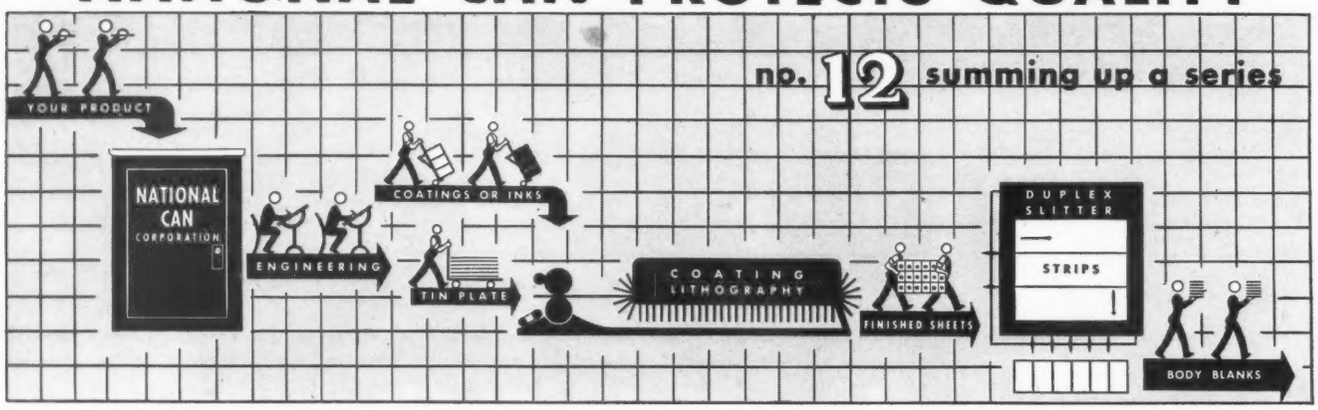
THE GARDNER-RICHARDSON CO.

Manufacturers of Folding Cartons and Boxboard, Middletown, Ohio

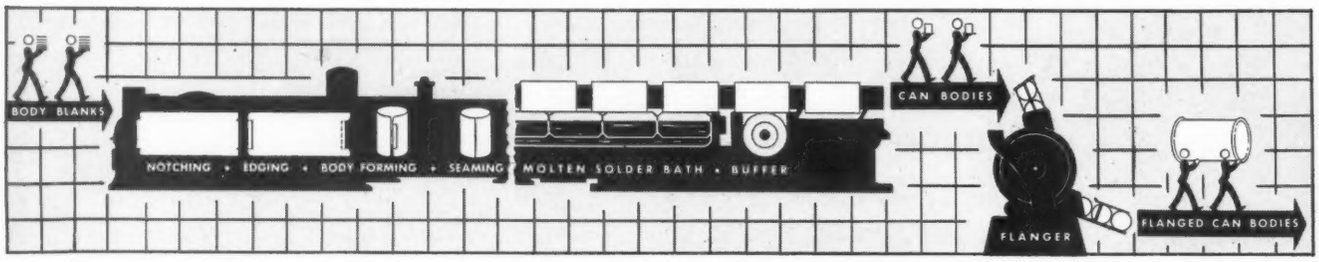
Sales Representatives in Boston, Chicago, Detroit, New York, Philadelphia, Pittsburgh, St. Louis

*Reg. U. S. Pat. Off.

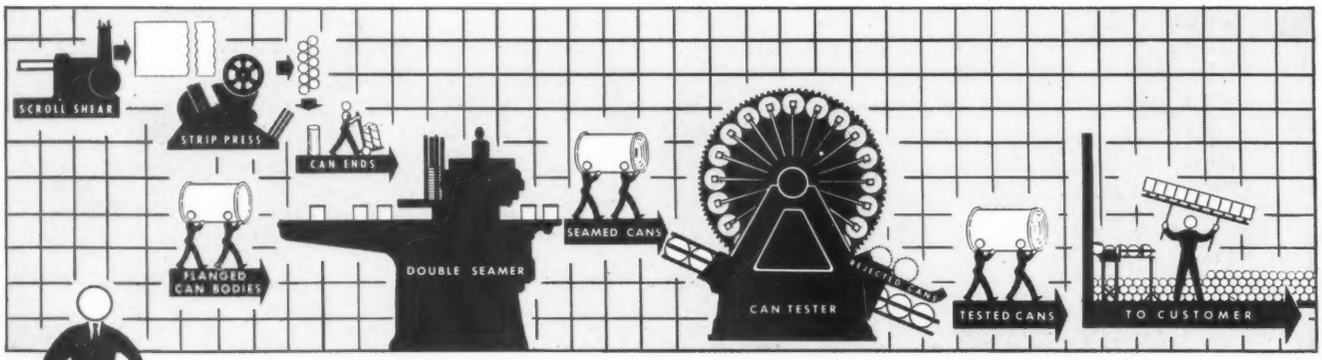
FROM DESIGN TO DELIVERED PRODUCT
NATIONAL CAN PROTECTS QUALITY



.. ITS ENGINEERING AND ART SERVICES ARE AT YOUR DISPOSAL . . . IT MAINTAINS HIGH PROTECTIVE COATING AND LITHOGRAPHING STANDARDS . . . SLITTING METHODS INSURE UNIFORM BODY BLANKS



. . . ITS CAREFUL BODY FORMING HELPS MAKE TIGHT UNIFORM CONTAINERS . . . ITS THOROUGH SIDE-SEAMING INSURES TIGHTNESS . . . IT FLANGES CAN BODIES UNIFORMLY ON BOTH ENDS . . .



. . . THE WAY WE MAKE CAN-ENDS IMPROVES PACKERS' OPERATIONS . . . DOUBLE SEAMERS PRODUCE UNIFORMLY TIGHT SEAL . . . TESTING AUTOMATICALLY REJECTS ALL BUT AIR-TIGHT CANS . . . CAREFUL HANDLING AND PACKING PROTECT CANS ALL THE WAY ITS PERSONALIZED SERVICE HELPS CUSTOMERS IN THEIR OWN PLANTS

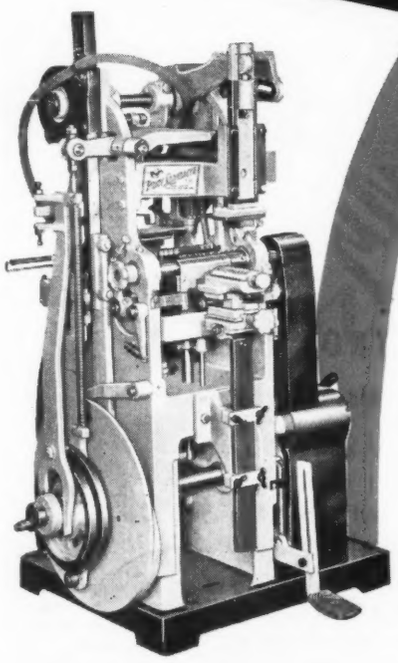
Reprints of this entire series can be obtained upon request.

NATIONAL CAN
CORPORATION

Executive Offices: 110 EAST 42nd STREET, NEW YORK 17, N. Y.

SALES OFFICES AND PLANTS IN: BALTIMORE, MD. · CHICAGO, ILL. · HAMILTON, OHIO · BOSTON, MASS. · INDIANAPOLIS, IND. · MASPETH, N. Y. · CANONSBURG, PA. · ST. LOUIS, MO.

2 gals go off your Labeling line



when the PONY LABELRITE* goes on!!

* Reg. U. S. Pat. Off.

You know before you buy the PONY LABELRITE that the built-in, ***guaranteed*** accuracy of label-placing releases two girls (label-straighteners and excess-glue wipers) from your payroll.....

- - Saving many times the cost of your Pony Labelrite.

- **VACUUM PICKUP & STRAIGHT-LINE DELIVERY MEANS *Perfect Register***
- **TWIN-ROLLER GLUE CONTROL PREVENTS ANY EXCESS ADHESIVE**

BRISTOL MYERS COMPANY labels 72 TRUSHAY bottles per minute on a dual-feed PONY LABELRITE.

500

NEW JERSEY MACHINE Corporation

1510 WILLOW AVE. • HOBOKEN, N. J.

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for the BAYER Division of the

WINTHROP

CHEMICAL COMPANY

Marking by MARKEM

LABEL DETAIL plus CONTROL NUMBER

On Glass Bottles, Ampules, Vials, Metal Boxes

THE PROBLEM: How to mark directly on glass containers — of scores of different sizes and shapes — not only the ingredients, trade-mark, company name and address, but also the CONTROL CODE NUMBER indicating the nature and date of the batch. Also, to mark the control code number on lithographed tin boxes after they are filled with pills. These were the difficult problems of the Bayer Division of the Winthrop Chemical Company.

THE SOLUTION: Full use of Markem methods, machines and special inks. Now complete identification of many pharmaceuticals in the Winthrop line is put on containers with Markem machines and inks. One single model Markem machine can be quickly adjusted — from one size ampule to another, from ampule to vial, or from vial to bottle. Markem method permits quick interchange of variable detail and control numbers. Result? Faster production. Elimination of paper labels. In marking control number on Creamalin box, a Markem machine is coordinated with automatic filling machine.

LET MARKEM solve your problem. MARKEM service includes method, machine and inks to meet your individual requirements of speed, material and purpose, whether in marking boxes, bottles, labels, or the product itself. Tell us your needs; we'll do the rest.

MARKEM
MACHINE
COMPANY
KEENE, N. H.

Your new package

ACE
Packaging that **ATTRACTS** *is the Packaging that* **SELLS**

Your new package can be aptly referred to as "your baby"—and so, its future, likewise, will depend greatly upon its start in life.

It is the care and thought—the "upbringing", so called—that counts today in *packaging.* We at Ace Carton Corporation have "delivered" many a successful "new baby" into this world of competitive merchandising.

• We can be helpful to you!

ACE CARTON CORPORATION

FOLDING PAPER BOXES • FOLDING DISPLAY CONTAINERS

5800 WEST 51st STREET, CHICAGO 38, ILL. • TELEPHONE PORTSMOUTH 1111

BIG PRODUCTION FOR BIG USERS

If you are selling top-notch products to mass markets and your business is constantly expanding, perhaps you need greater container production to keep pace with your progress. We are geared to produce a wide variety of top quality round and oval containers and to deliver the goods in a hurry.

Call or write us now and we will be glad to show you samples of work we are doing for other leading manufacturers.

HARCORD MANUFACTURING CO.

A Division of the Meehan-Tooker Co.

152 BAY STREET • JERSEY CITY 2, N. J. • PHONE: DELAWARE 3-1212

BEETLE plastic box developed for The Gruen Watch Company, Cincinnati, by The Electric City Box Company, Buffalo, and molded by Rathbun Molding Corporation, Salamanca, N. Y.

colorful, lustrous Beetle plastic makes a perfect setting for sales*

The Gruen Watch Company wanted a box of a material that would speak *instantly* of high quality for watches that do the same. So BEETLE plastic was selected . . . as ideal for eye-appeal and for molding characteristics that readily accommodate special hinge constructions such as the Rathbun Triplex Spring Hinge specified for this box.

The happy result is a package that attracts the eye to *any* counter, to *any* display case . . . a container with a smooth-as-velvet texture, a high-quality effect that makes a proper setting for sales.

But BEETLE plastic does more than *look* like quality. This low-cost, easy-to-mold compound *acts* like quality, too. It is chemically inert, dimensionally stable, highly resistant to abrasion, wear and impact. It is easy to clean . . . does not gather dust . . . and its extremely light weight belies its great strength.

If *you* want a packaging material molded of BEETLE plastic . . . with its permanently attractive colors and its many other desirable qualities . . . consult your molder or Cyanamid today.

American Cyanamid Company, Plastics Division, 34B Rockefeller Plaza, New York 20, N. Y.

BEETLE* plastics – urea-formaldehyde thermosetting molding compounds. MELMAC* plastics–melamine-formaldehyde thermosetting molding compounds, industrial and laminating resins. UREAC* resins–urea-formaldehyde thermosetting industrial resins and adhesives. MELUREAC* resins–melamine-urea-formaldehyde thermosetting resin adhesives and laminating resins. LAMINAC* resins–thermosetting polyester resins. **Reg. U. S. Pat. Off.*

Cyanamid Plastics

CERAMIC DECORATING

The most vivid development in modern glass packaging. Permanent ceramic decorations, used either as all-over base effects or as sparkling labels, have two outstanding advantages:

1. *Sales appeal of a glass container is definitely enhanced. Your package is set apart as a "prestige" item — a glass package in which color, design, message and product combine to form an integrated, self-merchandising unit.*

2. *Complete permanence of label and decoration. The fired-on colors will not run, bleed, wipe off or dull. No more tattered, frayed, or shelf soiled labels!*

Ceramic decorating puts new life in an old product—gives every selling advantage to the introduction of a new item. Your inquiries are invited.

Glass Crafters
DIVISION, W. BRAUN CO.
300 North Canal Street, Chicago 6, Illinois
Chicago — New York — Detroit — Milwaukee

High speed application

Tamper proof sealing

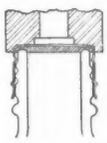
Finger tip opening

"Tailor-made"

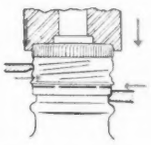
protection against tampering

Here's the plant-to-customer protection your product needs! Alseco Pilfer-Proof Caps are tailor-made to fit each bottle they seal. The unbroken seal furnishes conclusive proof to your customers that the original quality of your product arrives intact. Today, write for the details.

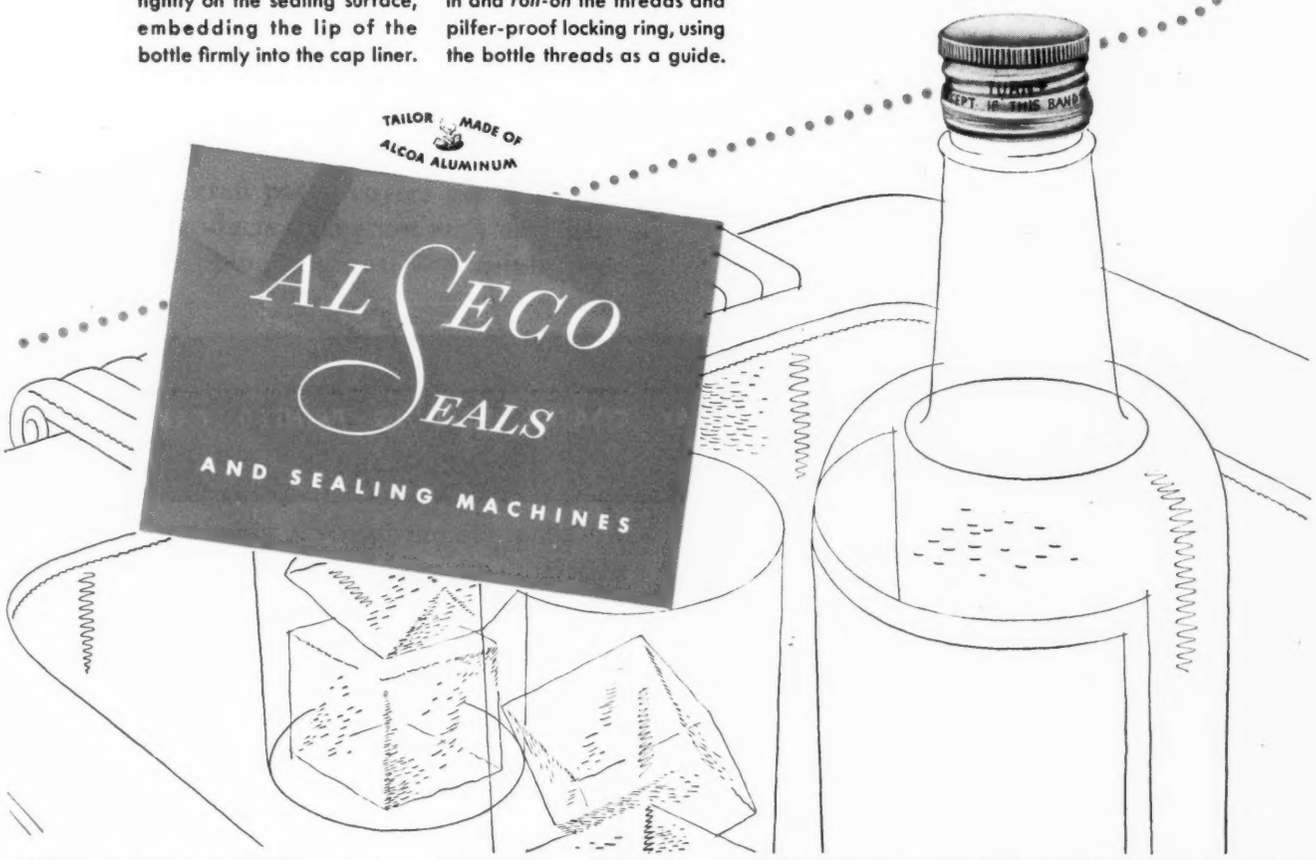
"Tailor-made" To Fit Each Bottle



Under controlled pressure, the unthreaded cap is held down tightly on the sealing surface, embedding the lip of the bottle firmly into the cap liner.



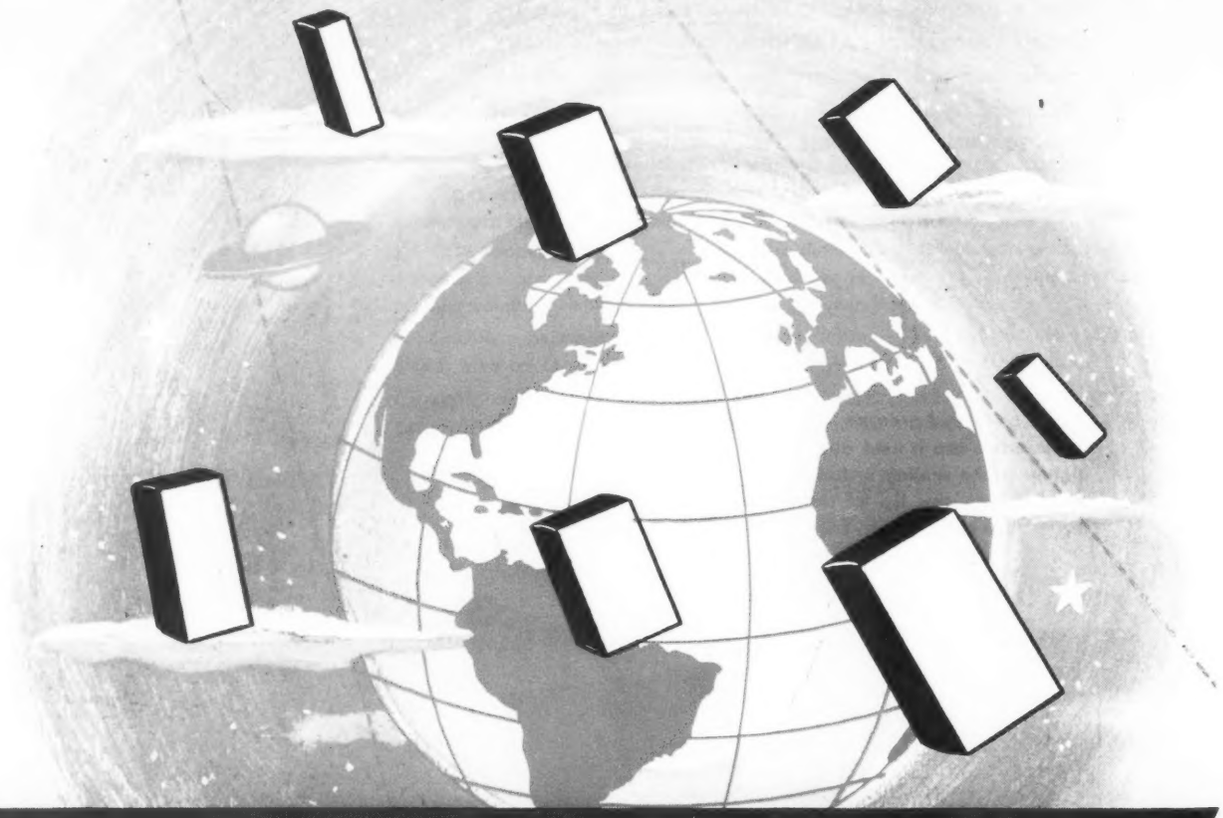
While the cap is held down tightly on the bottle, rollers move in and *roll-on* the threads and pilfer-proof locking ring, using the bottle threads as a guide.



ALUMINUM SEAL COMPANY, INC. • RICHMOND, INDIANA • SUBSIDIARY OF ALUMINUM COMPANY OF AMERICA

AMERICAN COATING MILLS

DIVISION OF OWENS-ILLINOIS GLASS COMPANY



WORLD'S LARGEST PRODUCER OF CLAY COATED FOLDING PRINTED CARTONS

SALES OFFICES: *Elkhart, Ind. • Chicago • New York • St. Paul • Memphis • Grand Rapids • Evansville • Detroit*

PLANTS: *Elkhart • Chicago • Memphis • Grand Rapids*

IS YOUR PRODUCT LISTED HERE?

(or if it is even remotely related)

ELECTRIC RANGES	GAS RANGES
DEEPFREEZE UNITS	REFRIGERATORS
WATER HEATERS	OFFICE DESKS
STEEL FILING CABINETS	BROOMS
WALLBOARD	MATTRESSES

Bemis' sturdy kraft paper covers get these and many other products to market with easy handling, low shipping charges, and ample protection.

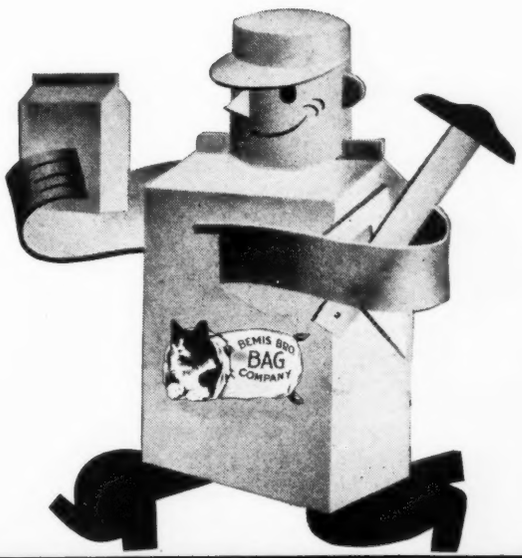
Bemis covers are slipped over the product in a jiffy to seal out dust and dirt. With this scuff-resistant cover, the product can be stored for months and be ready to go onto the display floor sparkling fresh at any time.

You can probably save substantial sums on shipping charges alone by talking with the Bemis Paper Bag Specialty Man.

BEMIS BRO. BAG CO.

PAPER SPECIALTY PLANT • 1056 South Vandeventer, St. Louis, Mo.

Then...see how BEMIS can serve you with Good Packaging at Low Cost



FILL OUT AND MAIL THIS COUPON TODAY

Bemis Bro. Bag Company, Paper Specialty Plant
1070 S. Vandeventer, St. Louis 10, Missouri

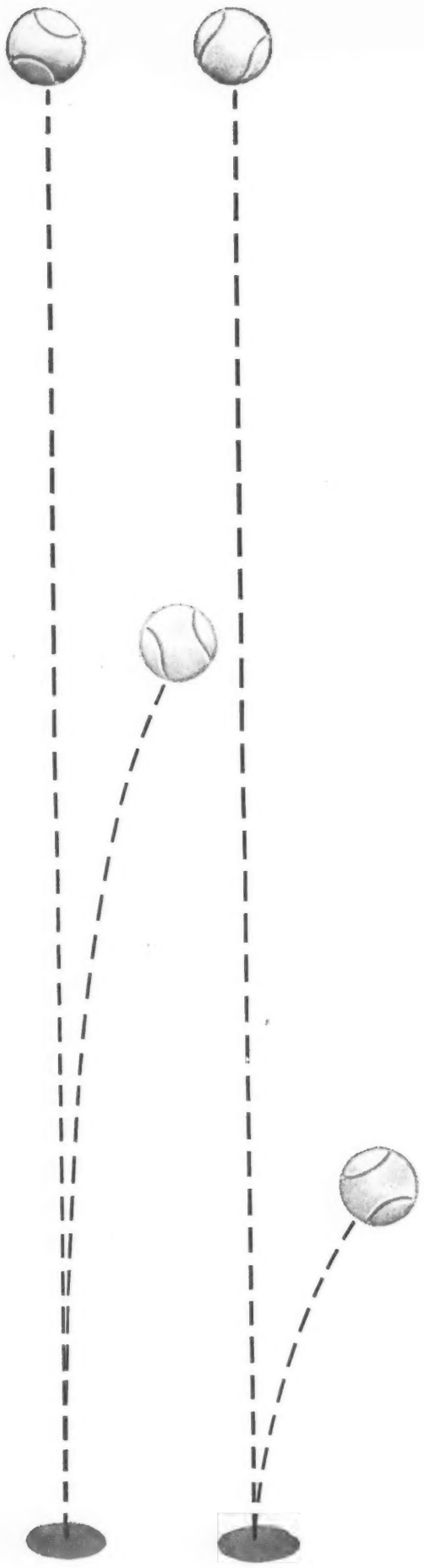
How can Bemis help cut packaging costs for our products? We manufacture_____

*Name*_____

*Firm Name*_____

*Street*_____

*City*_____ *State*_____



Getting "more bounce" in your business

Some 15 years ago a simple packaging trick put more bounce into tennis balls.

The trick—putting them in a key-opening can under pressure—pleased everybody.

Inventories could be built up in slack seasons without fear that the tennis balls would go stale.

Shelf and window displays could be made in sporting goods stores easily.

Players had tennis balls with more bounce . . . any time . . . any place.

Perhaps similar expert packaging advice on the part of American Can Company will get "more bounce" into your product.

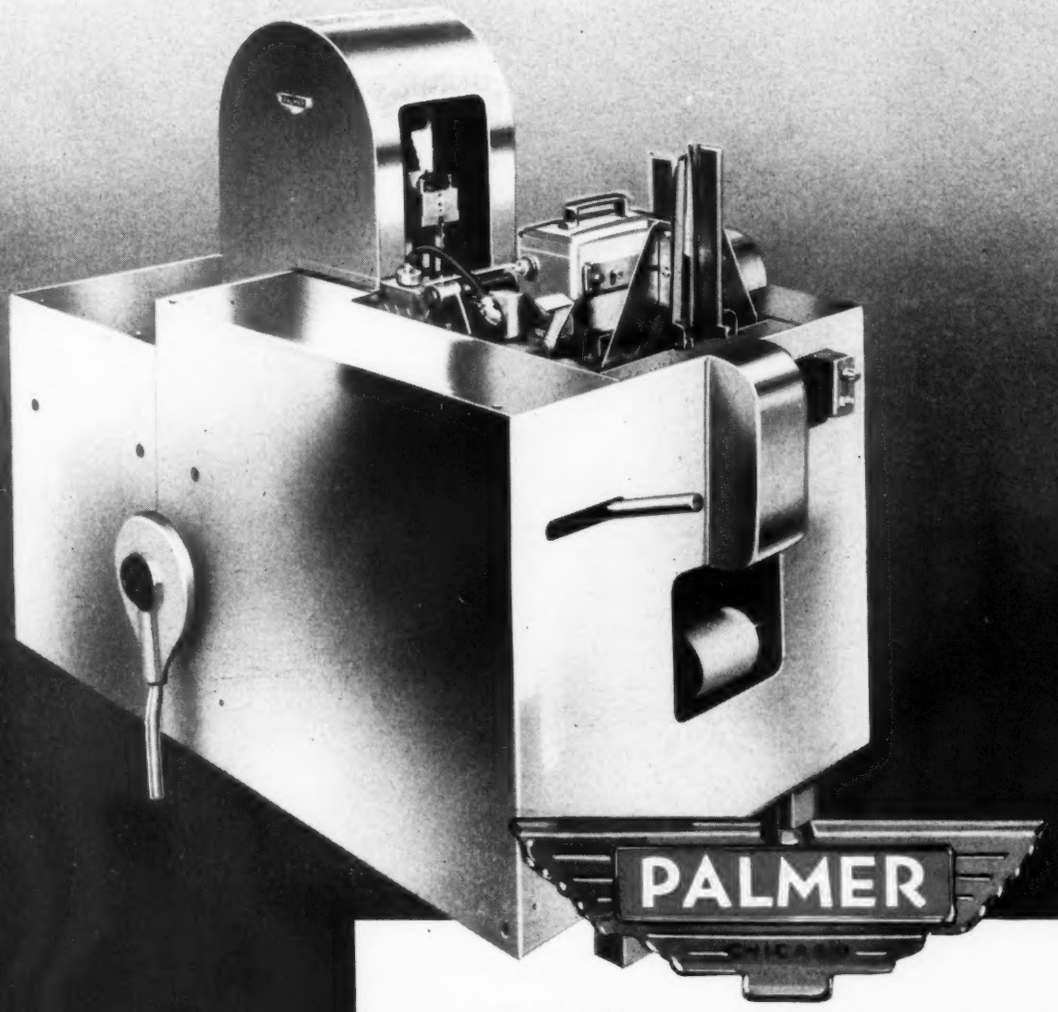
Canco know-how in devising new and better packaging methods has paid off in extra profits for others for 47 years. Maybe it can do the same for you.

AMERICAN CAN COMPANY

CANCO

New York • Chicago • San Francisco

CUT YOUR PACKAGING COSTS
and Increase Your Margin of Profit



It is probable that the cost of packaging your product, no matter what it is, can be substantially reduced by the application of PALMER methods and PALMER machinery. Our engineers will be glad to discuss it with you.

You don't have to be an economist to know—that to defeat rising labor and material costs of packaging you've got to speed up production, and that high speed, high efficiency, low-operating-cost machines, specifically fitted to the job, are the direct, most economical road to that objective . . . PALMER Carton Set-up Machines are these profit factors in your packaging department. They eliminate costly hand operations; they deliver complete cartons at any speed your production quotas demand; they produce cartons from standard blanks, in almost any size, with plain sides, turned over end flaps, turned over side flaps, attached covers, or a combination—and they do it efficiently, with minimum operating attention and at very low cost per carton. Let us show you how these machines will make profit building savings for you.

FRANK D. PALMER, Inc.

528 N. Western Ave, • CHES. 3344 • CHICAGO 12

PACKAGING MACHINERY MANUFACTURERS

FUJIYAMA . . . *Towering 12,395 feet in isolated splendor, this famous mountain has been the "Peak of Attention" for travelers to the Orient for years.*

Peak of attention.....

MORE and more packers of food products are finding that handsome Anchor Deep Screw Caps snap up package appearance . . . command attention . . . make packages a standout on crowded market shelves and in "island" displays. The "AH-G", here pictured, imparts that "new look"—witness its deep, flowing skirt, distinctive segmented thread and neatly rolled knurls which give a sturdy, smart, trim effect that bespeaks sales appeal. And, equally important, its unusual sealing qualities guard and protect the product from time of packaging until entirely consumed.

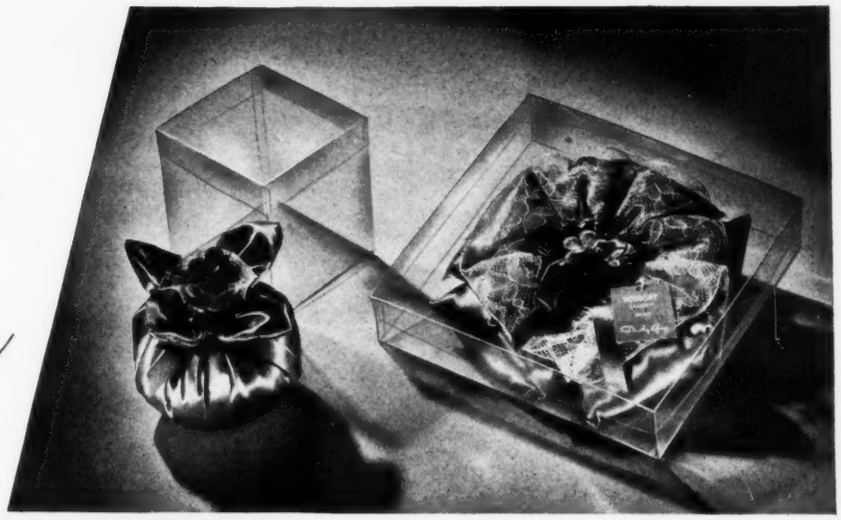
Anchor
CONTAINERS and CAPS

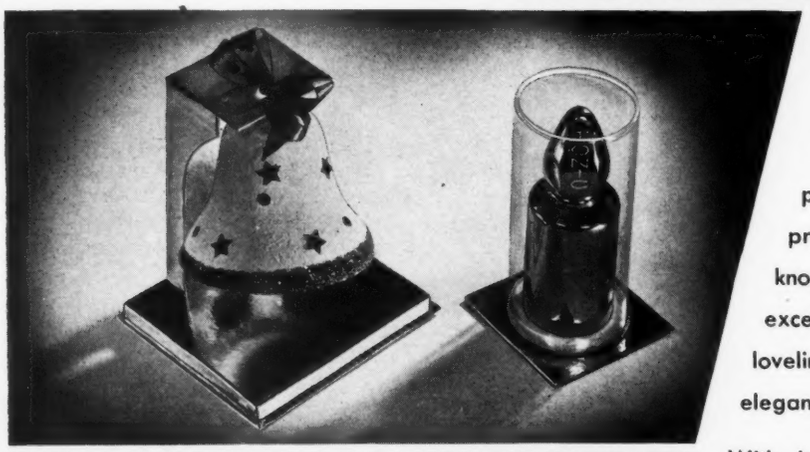
PRODUCTS OF
ANCHOR HOCKING GLASS CORPORATION
LANCASTER, OHIO

IT'S *Anchor AH-G Caps*
FOR THE PEAK OF ATTENTION

"Crime Photographer", Thursday evenings, entire CBS network, sells all America on glass-packaged products.

design for *Temptation*





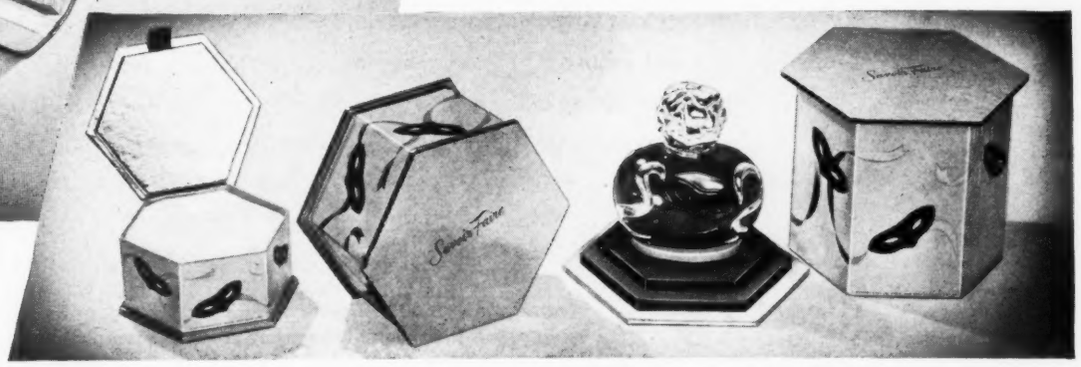
Few modern Eves are able to resist the temptation, the unique appeal, of a beauty aid or cosmetic product packaged with the specialized know-how of Feder Industries. For Feder excels in packagings rich in feminine loveliness, packagings steeped in boudoir elegance.

With similar ingenuity and skill, Feder designs and produces the distinctive in displays, bows, sachets, cases and other sewn articles.

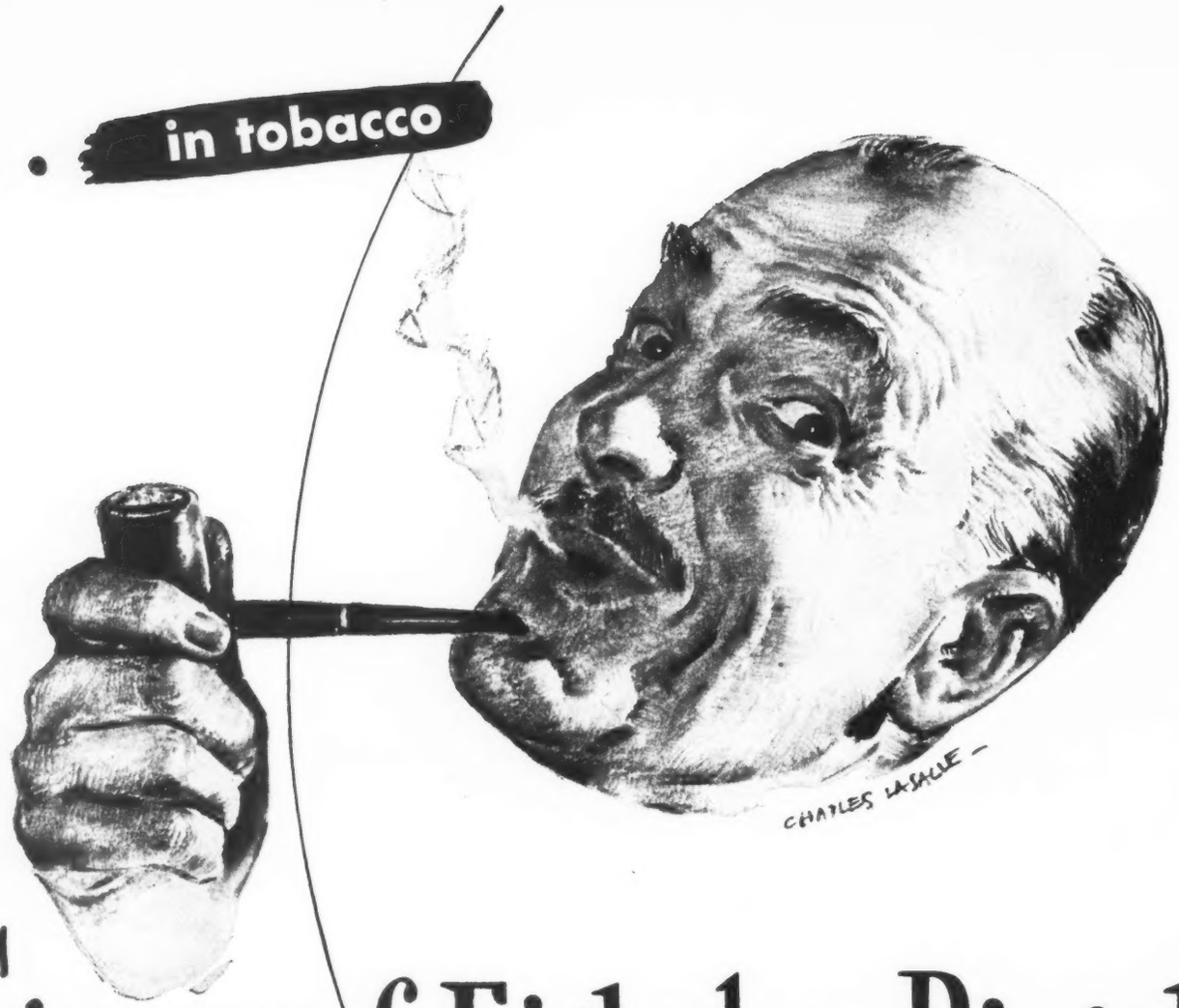
Feder Industries offers you the full scope of their creative imagination for the development and manufacture of striking conveyances for your products—for presentations which are the ultimate in temptation.

FEDER INDUSTRIES, Inc.

234 WEST 56th STREET NEW YORK 19, N. Y.
CIRCLE 5-5447, 5448



. . . in tobacco



Six out of Eight buy Riegel

Six of the eight largest tobacco companies buy Riegel Papers regularly

In tobacco, and many other fields, you will find that most of the sales leaders are regular Riegel customers. They recognize our ability to produce packaging and industrial papers that combine technical excellence with economy and production efficiency. This widespread confidence in Riegel is perhaps the best reason why your company—whether large or small—should see if we can also serve you. Riegel Paper Corp., 342 Madison Avenue, New York 17.

Riegel Papers **We produce over 600 different packaging, printing, converting and industrial papers. If we don't have what you want, we can probably make it.**

BIG BONUS

from Dobeckmun "STANDARD SIZE" Cellophane Bags

260 "Standard Sizes" —eight basic shapes —variable lengths to match your present sizes —printed or unprinted.

Sparkling impact, high quality construction and lower costs make Dobeckmun "Standard Sizes" the best bag buy, today. With 260 sizes available, in moisture-proof, heat-sealing cellophane or other films, you can match your present bag capacities while making substantial savings.

The biggest bonus of all is the eye-catching power of Dobeckmun printing, in one, two or three colors . . . crisp, clean, brilliant. You get this added sales impact for no more than your present label and labor cost. And, we can make contract deliveries to match your production schedules.

Ask for samples: or, send us specimens of your bags, with quantity requirements, and we'll show you why Dobeckmun "Standard Sizes" are the best bag buy, today. *The Dobeckmun Company, Cleveland 1, Ohio. West Coast Division, Berkeley 2, Calif.*

STANDARD SIZE
DOBECKMUN
CELLOPHANE BAGS
BY CONCENTRATING PRODUCTION ON A LIMITED RANGE OF SIZES, WE CAN OFFER THE BUYER
SUPERIOR QUALITY
FASTER SERVICE
LOWER PRICES
Special Features
1 SURFACE PRINTING LIKE THIS SAMPLE IN ONE, TWO OR THREE COLORS.
2 EASY OPENING LIP FOR BETTER SEAL AND EASIER OPENING.
3 LENGTH FLEXIBILITY - - - - FROM 3" THROUGH 15" IN ½" STEPS.
4 GREATER STRENGTH WITH GLUED SEAMS AND BOTTOMS
5 FACE PRINTING EXTENDING TO BACK EDGE OF PLYS - - - WITHOUT ANY EXTRA CHARGE
THE DOBECKMUN COMPANY
CLEVELAND, OHIO
WEST COAST DIVISION • BERKELEY, CALIFORNIA

CREATORS OF "PACKAGE IMPACT"

Today, your bags and packages must outshine competition with high display values and smashing sales impact, as well as in product protection. With smart designs and ingenious technical skill, we process these qualities into cellophane, other films and metal foils, alone or in laminated combinations. Ask us to prove the sales-stimulating effects of packages by Dobeckmun.

DOBECKMUN

Self-selling packages in processed films and foils

Branches: Boston, Chicago, Cincinnati, Los Angeles, New York, Philadelphia, Portland, San Francisco and Seattle. Representatives everywhere.

What Every Manufacturer Should Know about WOMEN

THE TROUBLE with the obvious fact that ¾ of the consumer goods market is WOMEN is—that the fact is *obvious*. Because it's obvious we assume we know ALL about it. We say, "Okay—*women buy ¾ of all goods sold at retail*—so what?"

Well—leading national merchandising organizations think a great deal about that *obvious* fact. They conduct nationwide surveys—just to learn *how* women buy. As a result, they manufacture and *package* their products primarily *to attract and sell women.*

Those nationwide surveys show that women make ¾ of their decisions as to *what brand* to buy—in the stores—at the point-of-sale—*on impulse.* And that there—*the appearance of a product's package* is frequently THE decisive sales factor.

HOW TO MAKE YOUR PACKAGE SELL!

Let Ritchie help you develop (at low unit cost) a package that meets the increasing challenge of self-service retailing. A practical, production-planned package that instantly identifies, fully protects and conveniently dispenses your product. Easy to fill or pack—to handle—to stack or display. An attractive, eye-stopping, SELLING package.

JANIS CARTER, starring in I LOVE TROUBLE . . . a COLUMBIA Production

• As the motion picture industry capitalizes on good looks, keen merchandisers capitalize on the selling power of an *attractive* package.

Never the Power

W.C. Ritchie and COMPANY
8840 Baltimore Avenue • Chicago 17
★ SET-UP PAPER BOXES
★ FIBRE CANS
★ TRANSPARENT PACKAGES
TRADE MARK

Underestimate of the Package!

NEW YORK • DETROIT • LOS ANGELES • ST. LOUIS • CHARLOTTE • JACKSONVILLE • ERIE

THE BOXBOARD WITH FEEL-APPEAL
EYE-APPEAL
AND BUY-APPEAL

CROWN MARK

CROWN SUEDEBOARD

A CROWN MARK PRODUCT

FEEL IT!

Fibres "Flocked" Directly on the Board

- HEAVY WEIGHT

. . . For Folding and Set-Up Boxes
. . . New Packaging Possibilities

Ideal for printing, novelty products and many additional art applications.

In 16 style-right pastel and deep colors. Special shades and embossings on orders of 100 reams or more.

Rolls 49" wide . . . sheets 36" x 49" . . . smaller sizes on application.

Send for color charts and list of other products

CROWN-MARK PAPER CORPORATION

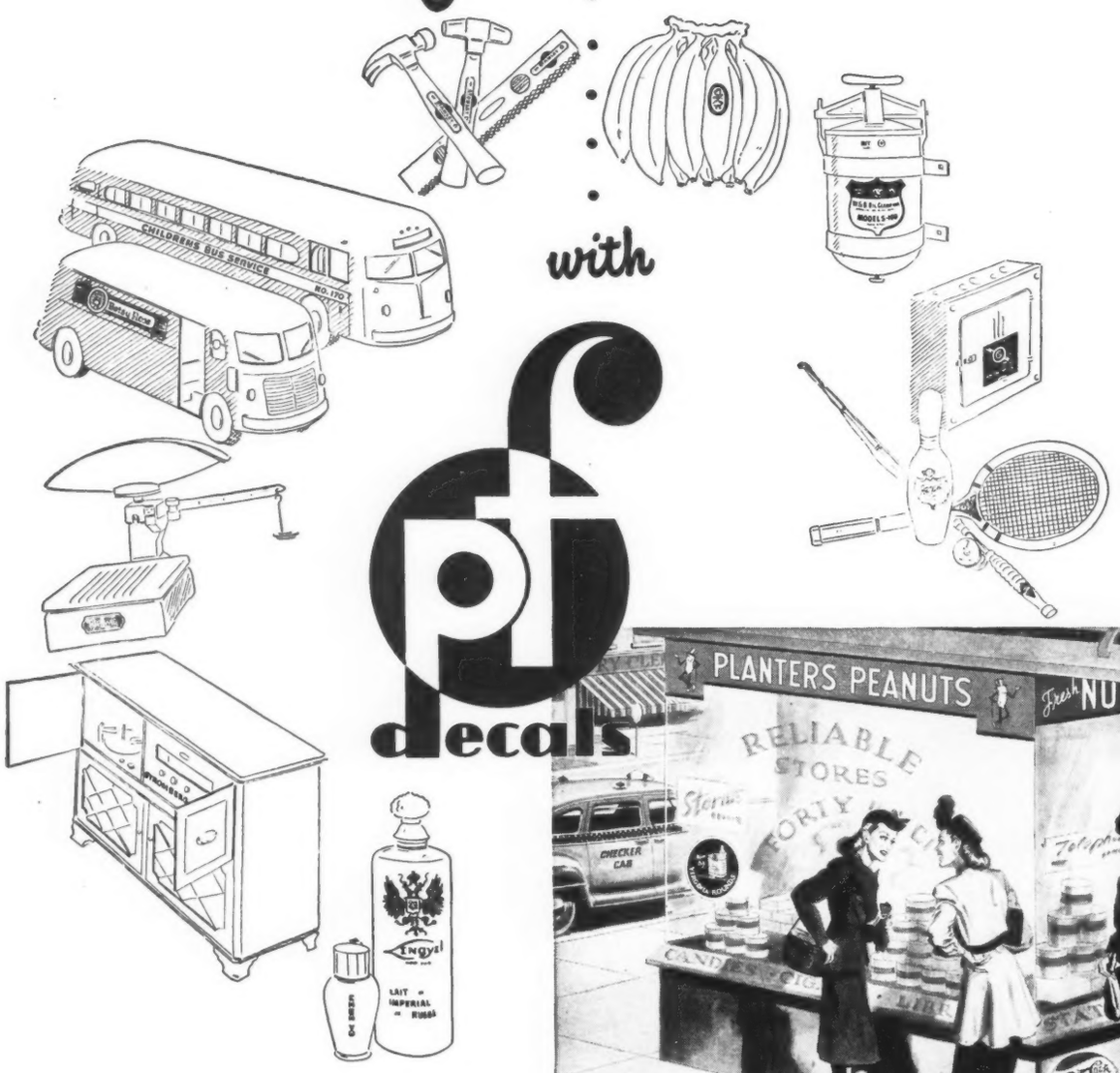
155 East 44th Street, New York 17, N. Y.

Mills: Claremont, N. H.

Converting Plants: Lynbrook, N. Y.
Chicago, Ill.

Other offices: 1545 S. State Street, Chicago, Ill. — 1387 Main Street, Springfield, Mass. — 124 W. 4th Street, Los Angeles, Calif.

Brand your product

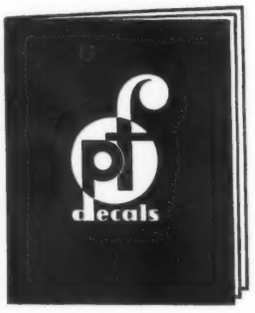


From bananas to bowling pins — from a powerful steamship riding the high seas to a dainty bottle of perfume on a frilly dressing table — PF decals go everywhere, sell all the time. They're in your office and they ride through city streets on buses, trucks, trolleys, company autos. PF decals go where no ads ever reach — and they're selling throughout their long life, in free space!

PF decals pay for themselves, bring credit and recognition to your product. Show your own trademark with pride; make full use of its value! If it's out-dated, PF has full art services and will show you new designs without charge or obligation.

PALM, FECHTELER & CO.
NEW YORK • E. LIVERPOOL, OHIO • CHICAGO

Since 1856 PF decals have been an important part of over 50 industries. Learn how they can benefit your own product economically and profitably. Write today for free samples and your copy of our informative brochure. Address Dept. D 220 West 42nd Street, New York 18, N Y.



ELECTRONICS IN CARTONS

The American passion to hear all, see all, and know more about what goes on in the world incites the radio and television industries to prodigies of production.

In 1947 some 15,000,000 radio sets were made and marketed for $1,650,000,000. Last year, too, the television people really got going, with 175,000 receivers sold and installed. The 1948 estimate for television is for triple this volume, to a retail value of at least $200,000,000.

These millions of delicately adjusted assemblies had to be eased through distribution channels in containers which provided maximum protection. Most of them were delivered to the customer in safe, factory-sealed corrugated cartons.

Many of these were fabricated from MEAD .009 Chestnut Corrugating. For 20 years, MEAD has specialized in super-strong corrugating materials made from chestnut and other hardwood fibres. Expanded MEAD facilities are doing their best to cope with the mushrooming demands of radio, television, and industry-at-large.

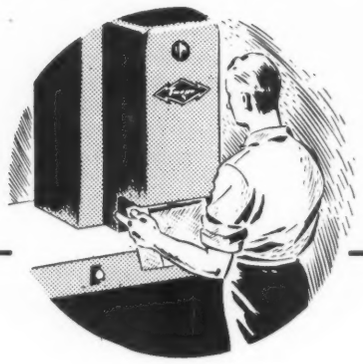
Mead Board is sold direct by

MEAD BOARD SALES, INC. 3351 MADISON ROAD, CINCINNATI 9, OHIO

NOW--
CUT CORNER SEALING TIME
IN HALF

THERMALL #12 SEALS

2 BOX CORNERS IN 1 OPERATION



The new THERMALL #12 heat seals two corners of an acetate or vinyl box at the same time, providing the sides of the box are no deeper than 4". As this process eliminates waste motion, heat sealing of such boxes and other articles fabricated from rigid sheeting can be done more rapidly.

The THERMALL #12 Electronic Heat Sealer efficiently welds all types of rigid acetate and vinyl sheeting from .005" to .020". By a simple variation in the electrode arrangement, straight or circular seals up to a maximum length of 12" may be made.

EASY TO OPERATE. A single timer controls both the pressure and sealing cycle. Since no tuning adjustments are necessary, even untrained help can make job to job set-up changes in just a few minutes. The operator merely places the open side of the article to be sealed over the projecting arms of the electrodes and presses the dual safety buttons to complete the weld.

COMPLETELY SELF-CONTAINED. The THERMALL #12 consists of a high-frequency generator, air press and adjustable electrodes. The unit is so constructed that all transmission lines are eliminated. An easily adjustable power control is located between the lower electrodes. To facilitate easy servicing a jack is provided for a serviceman's meter.

We will be glad to show you how fast heat sealing of transparent sheeting can really be done.

Write today to arrange for a demonstration anywhere in the U. S.

THERMALL **ELECTRONIC HEAT SEALERS**

W. T. LA ROSE AND ASSOCIATES, INC.
635 SECOND AVENUE, TROY, N. Y.

Canadians still want your PACKAGED goods

The Canadian market for your packaged goods still exists and there's a good way to keep it supplied.

Bulk-ship your products to Rowe, the Dominion's largest independent custom packager. We will pack it for you in an exact duplicate of the container formerly exported to Canada.

In this way you may continue to supply your Canadian market—to maintain the demand for your products among your Canadian customers. And it's the *only* way you can prevent substitute brands from stealing your market.

We will package your products in any desired type of box, carton, bag or collapsible tube. If you wish, we will design and manufacture a completely new package for you.

Mail the attached coupon with a filled sample of your container today.

A COMPLETE PACKAGING SERVICE

ROWE

ROWE PACKAGING CO., LTD.
37 Hanna Ave.
Toronto 1, Canada

Gentlemen:

Here is a sample of our packaged product. How long will it take you to go into production? We need.....filled packages per month.

Name .....

Company .....

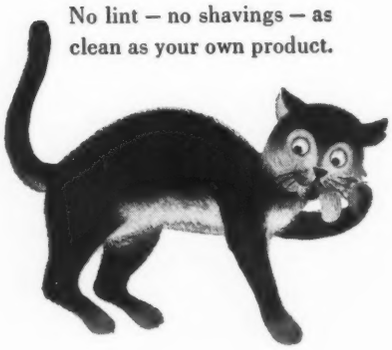
Address .....

ROWE PACKAGING CO., LIMITED • TORONTO • CANADA

ALUMINUM TUBES by Sun Tube

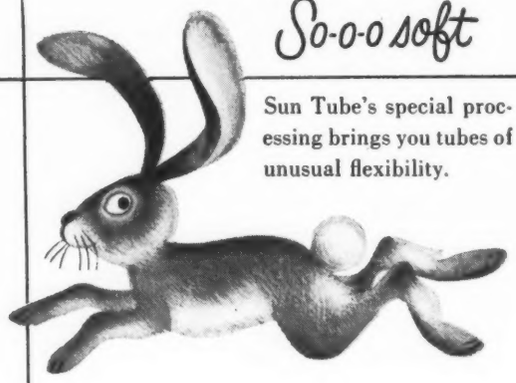
So-o-o clean

No lint — no shavings — as clean as your own product.



So-o-o soft

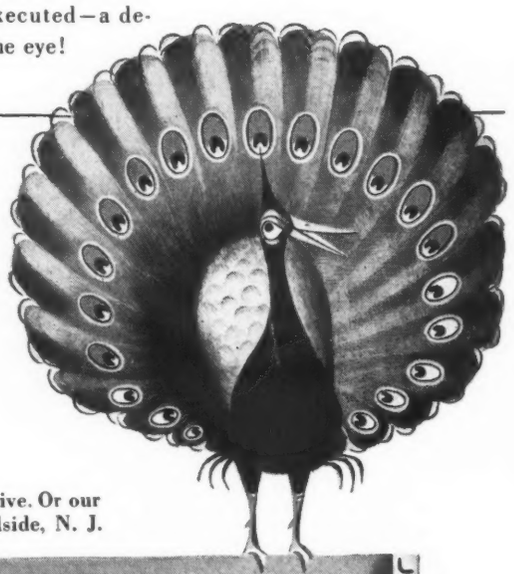
Sun Tube's special processing brings you tubes of unusual flexibility.



From Designing to Capping — From Testing to Engineering — IT'S SUN TUBE

Su-uch brilliant design

Vividly colored, beautifully executed — a delight to the eye!



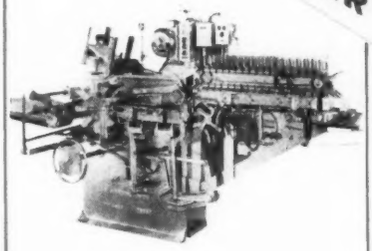
So-o-o dependable

Engineered with the crisp uniformity that distinguishes all Sun Tubes.

Phone or write our nearest representative. Or our main office at 181 Long Avenue, Hillside, N. J.

CHICAGO 3, ILL., James L. Coffield, Jr., 105 West Adams St.
LOS ANGELES 27, CALIF., R. G. F. Byington, 1260 North Western Ave.
ST. LOUIS 1, MO., M. P. Yates, Arcade Bldg.
ST. PAUL 1, MINN., Alexander Seymour, 615 Pioneer Bldg.
CINCINNATI 8, OHIO, Ralph H. Auch, 3449 Custer Road

Challenge Butter, sealed for purity in Mullinix Heat Sealed package. Package reproduction courtesy Challenge Cream & Butter Association.



Machine shown above produces 4-1 butter packages. The wrapped quarter-pound prints are taken into the machine on the intake at left. Mullinix wrapper is fed from magazine, four quarter-pound prints are enclosed, long seam on edge of package is securely sealed, and ends of wrapper are folded down and heat sealed. Completed packages are discharged on delivery belt at right.

THE new Mullinix Heat Sealed package with tear strip opener is finally ready for the market. Tested and approved, a grand success, a completely sealed moistureproof package for butter and similar products. The new Mullinix Heat Sealed package and the Redington machine are companions. The result of years of planning and engineering. A finer combination of package and machine is not to be found. High speed, smooth running, and less costly, it produces a rigid package of beauty and durability. Mullinix is not just a waxed carton, it is a specially coated, specially made carton and outside wrap combined. With Mullinix you are protected against moisture loss and foreign tastes and odors. Impurities cannot get through the Mullinix Heat Sealed package. There are no bulging tucks and flaps. Mullinix is streamlined and compact, is sealed for purity and protection, yet it is easy to open.

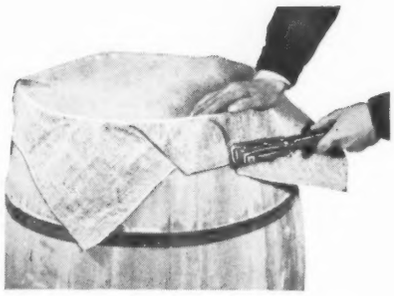
For thirty years the F. B. Redington Co. of Chicago has been actively engaged in building wrapping and cartoning machines for butter and other products that are packaged in similar ways. From the first, these machines have been properly designed and ruggedly built to produce packages at high speed and at high efficiency. Machines built twenty-five years ago are still in operation. No wonder that with the development of the Mullinix wrapper, Redington was called upon to build machines for producing this improved, better appearing, better protected, less costly package. Several of these machines are already in use and more are now under construction. Following Redington tradition they are simply and sturdily designed. Their construction contains many parts of stainless steel, nickel alloy, and other non-corrosive metals to assure users of long life and sanitary conditions so necessary in the butter industry.

mullinix

CROWN ZELLERBACH CORP., WESTERN WAXED PAPER CO. DIV. AND LICENSEES IN UNITED STATES AND CANADA. P.O. BOX 2444, LOS ANGELES, CALIF.

Which would you say is your Biggest Problem?

Want to Improve Appearance? Bostitch staples make neat, unobtrusive seal; do not affect legibility even when necessary to staple over printing.



Costs Too High? Bostitch self-feeding hammer cuts time two-thirds . . . also saves on materials, attaching burlap over open head of barrel.

Trouble in Shipment? Bostitching cartons top and bottom makes strong closure, forestalls losses due to pilfering and loosening by dampness.

Investigate Bostitching with its complete line of stapling, tacking, and wire stitching machines. Users, starting with small, inexpensive equipment, can change to larger, faster Bostitch machines as conditions warrant. Mail coupon for facts covering representative models; they may suggest an application you can use to lower costs or improve fastening.

BOSTITCH
A Complete Line for Shipping Rooms

Autoclench seals tops of corrugated containers after filling.

Bottom sealers staple or stitch bottoms — foot- and motor-driven.

Spring-driven tacker drives staples like two-pointed tacks — in exact location.

Plier-type seals flexible corrugated wrappings, light and fairly heavy containers.

BOSTITCH
510 Mechanic Street, Westerly, R. I.
Please send literature checked: ☐ #175 Bag Sealing; ☐ #157 Carding; ☐ #132 Shipping.

Name.....

Company.....

Address.....

City.....Zone....State.....

BOSTITCH
fastens it better, AND FASTER with wire
ALL TYPES OF MACHINES FOR APPLYING STAPLES
ALL TYPES OF STAPLES APPLIED BY MACHINES

Mrs. Consumer asked for an easy-pouring container . . .

WE PRODUCED THE Shelfline!

a new line of Duraglas containers

"Shelfline" containers have a new style shoulder structure that acts as a funnel—guarantees convenient, easy pouring! Surveys reveal this is a packaging feature Mrs. Consumer prizes!

Months of intensive research, designing and engineering have produced this new "Shelfline." It was made-to-order—your orders and your customers'!

Here are some other container advantages that consumers prefer and packers demand . . . advantages that the new "Shelfline" offers:

1 **Balanced, space-saving proportions . . . stable base . . . won't roll on counter, table or shelves.**

2 ***Easy-to-grip . . . easy-to-open and recap!**

3 **Wide front and back panels for maximum label display . . . as well as adequate space for side labeling if desired.**

4 ****Twelve sizes: ½ oz., ¾ oz., 1 oz., 2 oz., 3 oz., 4 oz., 5 oz., 6 oz., 8 oz., 12 oz., 16 oz., 32 oz.!**

5 **Only *four* cap sizes required for *all twelve* sizes of the narrow-neck line.**

6 **Three colors: amber, flint and emerald green to fit every need.**

You will find this new "Shelfline" adaptable to high-speed automatic filling and labeling equipment. It can replace many of your present containers, simplifying and securing family identity throughout entire lines. Call on us—we can fill your needs NOW.

*** Oblong shape fits securely in hand—is easy to grasp even when hands are wet.**

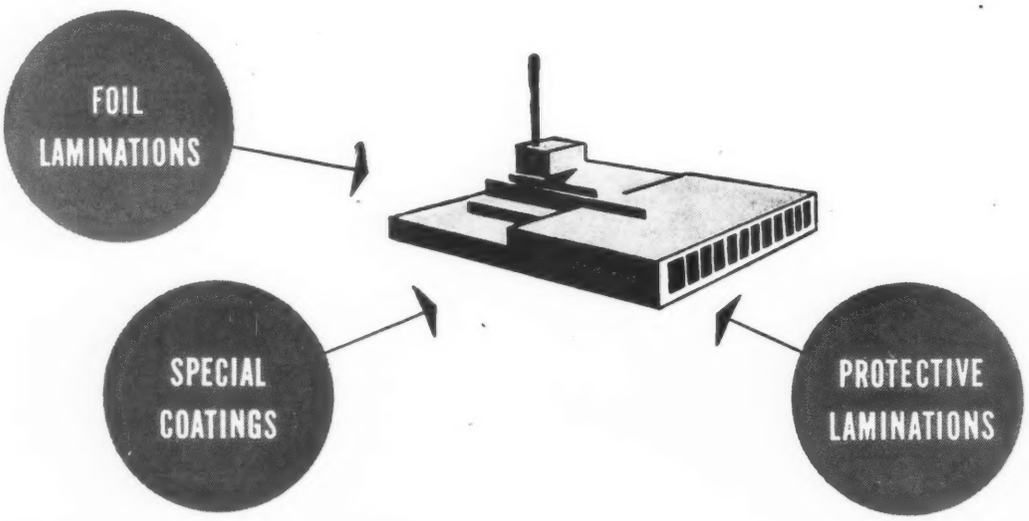
**** The "Shelfline" is a *complete* line—12 sizes, 3 colors . . . 36 containers to choose from.**

Duraglas CONTAINERS—PROTECTORS OF QUALITY

OWENS-ILLINOIS GLASS COMPANY • TOLEDO 1, OHIO • BRANCHES IN PRINCIPAL CITIES

AN OLD FRIEND OFFERS YOU A **NEW** SOURCE FOR

Custom LAMINATED and COATED Papers



Trojan

Foil Laminations to paper, board and cloth.
Pliofilm, cellophane and other protective laminations.
Special heat seal, greaseproof, protective coatings.

The new Laminating and Coating Division of The Gummed Products Company offers you a **reliable** two-way service. You may **send** us your materials for swift, economical custom laminating and coating. Or you may **order** the Trojan products made exclusively for the decorative, protective and graphic arts fields. Highest quality standards are maintained and assured by constant research and testing, newest modern equipment and extensive background of specialized experience.

Trojan Foil®

For complete facts on this new custom service and free samples of Trojan Laminated and Coated products, write Dept. 293 today.

THE GUMMED PRODUCTS COMPANY

OFFICES • TROY, OHIO • MILLS

Chicago • Cincinnati • Cleveland • Los Angeles • New York • Philadelphia • St. Louis

"Finest fruit I've growed in 40 years—"
John Toms
FLAVOR RIDGE
SHIPMAN, VIRGINIA
"Finest fruit I've growed in 40 years—" John Toms

(packaged in OLD DOMINION corrugated cartons)

Yes, and such fine fruit deserves to be packaged in boxes that will deliver it in right-off-the-tree condition. That's why the John Toms Orchards at Flavor Ridge, Shipman, Virginia, who do top merchandising and delivering of flavor-fresh apples throughout the season, consulted Old Dominion in designing their package and merchandising scheme. From the penny post card that tells you the fruit is on its way to the colorful card enclosure that speaks with a real Southern accent, every part of the merchandising is as precisely planned as the corrugated box with its sleeve protector.

So, when planning your product merchandising, consult Old Dominion's experts. Old Dominion's eight Southern plants make all types of paper board containers, including set-up boxes, canisters, folding boxes, corrugated containers and acetate packages. Send for General Line Folder No. 88.

OLD DOMINION *Box Company Inc.*

PLANTS LOCATED THROUGHOUT THE SOUTH

CHARLOTTE, N. CAROLINA

THE SOUTHERN BOX MAKER WITH A NATIONAL REPUTATION

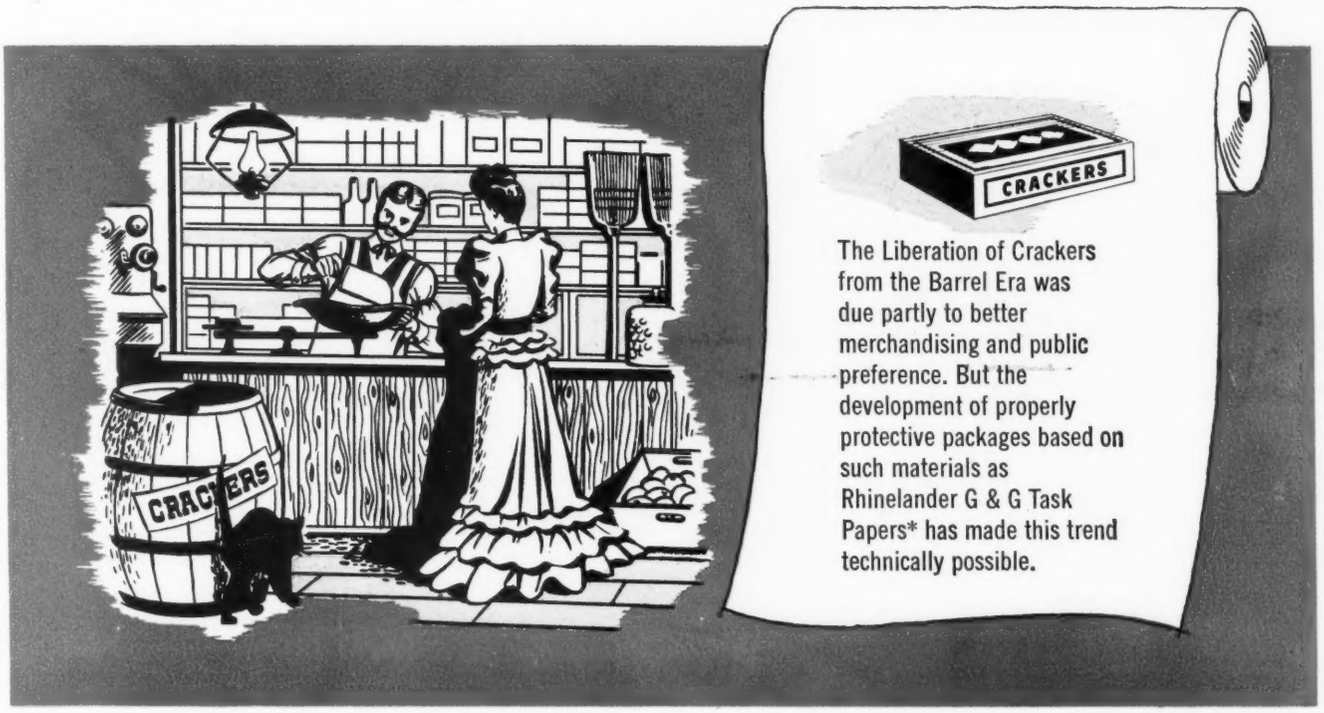
From Flock to Frying Pan

It is very important that all the rich, tempting, sales-winning goodness of *your* product reaches the ultimate consumer. That is why you should get the full measure of protection afforded by West Carrollton Genuine Vegetable Parchment. Poultry Packers, for example, know from long experience that this parchment has great strength—and *keeps* this strength wet or dry—is ODORLESS, INSOLUBLE, GREASE-RESISTANT, and DOES NOT TASTE. This fine parchment is ideal for meat and dairy products of all kinds. Specify West Carrollton Genuine Vegetable Parchment. Complete facilities right in our own plant for printing (in special inks) in one or more attractive colors.

West Carrollton GENUINE VEGETABLE Parchment

WEST CARROLLTON PARCHMENT CO.
WEST CARROLLTON, OHIO

All in a Day's Work at Rhinelander


CRACKERS
The Liberation of Crackers from the Barrel Era was due partly to better merchandising and public preference. But the development of properly protective packages based on such materials as Rhinelander G & G Task Papers* has made this trend technically possible.

Corn Chips!—that crispy, crunchy tidbit with origins in Old Mexico and now capturing the American palate are good almost in direct ratio to the moisture tightness of their package. Millions of bags for this tasty food are made of special Rhinelander protective papers.

Every Candy Lover is familiar with those pert little chocolate colored paper cups that hold bon-bons. This seemingly insignificant item has its own set of fussy technical requirements . . . all met perfectly by a custom built Rhinelander task paper.

Good Ham!—what a gustatory triumph and how dependably good as produced by our fine American Packers. Usually two G & G Task Papers* as made by Rhinelander assist in bringing each ham to your table in prime condition.

Remember the Stereoscope that once graced most parlor tables? Its successor, the View-Master, gives pictures full color and three dimensional fidelity. Color transparencies are mounted on discs of Rhinelander paper—a remarkable functional sheet of multi-ply lamination, coated for heat sealing.

A Very Special Grade of Rhinelander Glassine may have helped to "set" this table. In plastic molding a Rhinelander task paper serves as a seperator sheet . . . preventing plastic panels from sticking to each other or to the giant presses that form them.

**Glassine and Greaseproof—the functional papers that do so many tough jobs well*

Rhinelander
PAPER COMPANY

RHINELANDER PAPER COMPANY • RHINELANDER, WISCONSIN

MR. CELLOPHANE SHOWS THE WAY TO BETTER PACKAGING

SYLVANIA CELLOPHANE has the qualities so necessary for distinctive packaging. Every step in its manufacture is carefully checked. This careful control assures not only uniform transparency and a good printing surface, but also the high degree of dust, grease and water vapor protection . . . the low temperature durability and heat sealing qualities that make it outstanding in so many fields.

An inexpensive folding tray plus an overwrap of Sylvania Cellophane adds up to an inviting meat package that's a natural for self-service.

SYLVANIA CELLOPHANE

SYLVANIA DIVISION AMERICAN VISCOSE CORPORATION

Manufacturers of cellophane and other cellulose products since 1929

General Sales Office: 350 Fifth Avenue, New York 1, N.Y. *Plant:* Fredericksburg, Va.

SYLVANIA CELLOPHANE

Out of this World

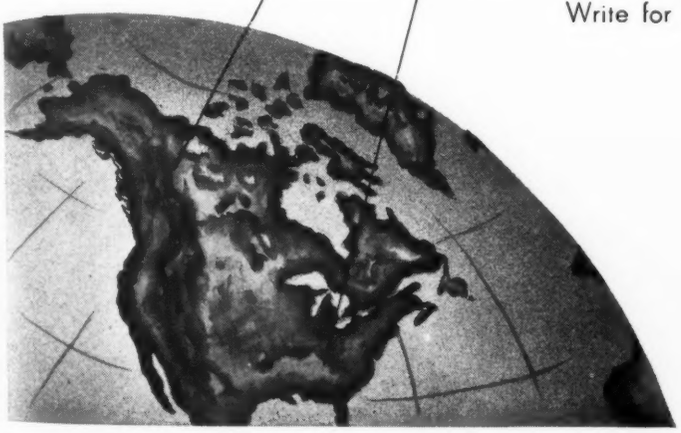
...BUT DOWN TO EARTH

Buying at retail, psychologists say, is a kind of delirium in which shoppers are partly "out of this world," partly "down to earth."

That is why Warnercraft packaging combines dream stuff with down-to-earthness; the stimulus of color . . . the impact of coordinated design . . . the persuasiveness of product enhancement.

And Warnercraftsmen speed your problems to happy solutions with advanced, low-cost production methods.

Write for Warnercraft's illustrated packaging handbook.



W

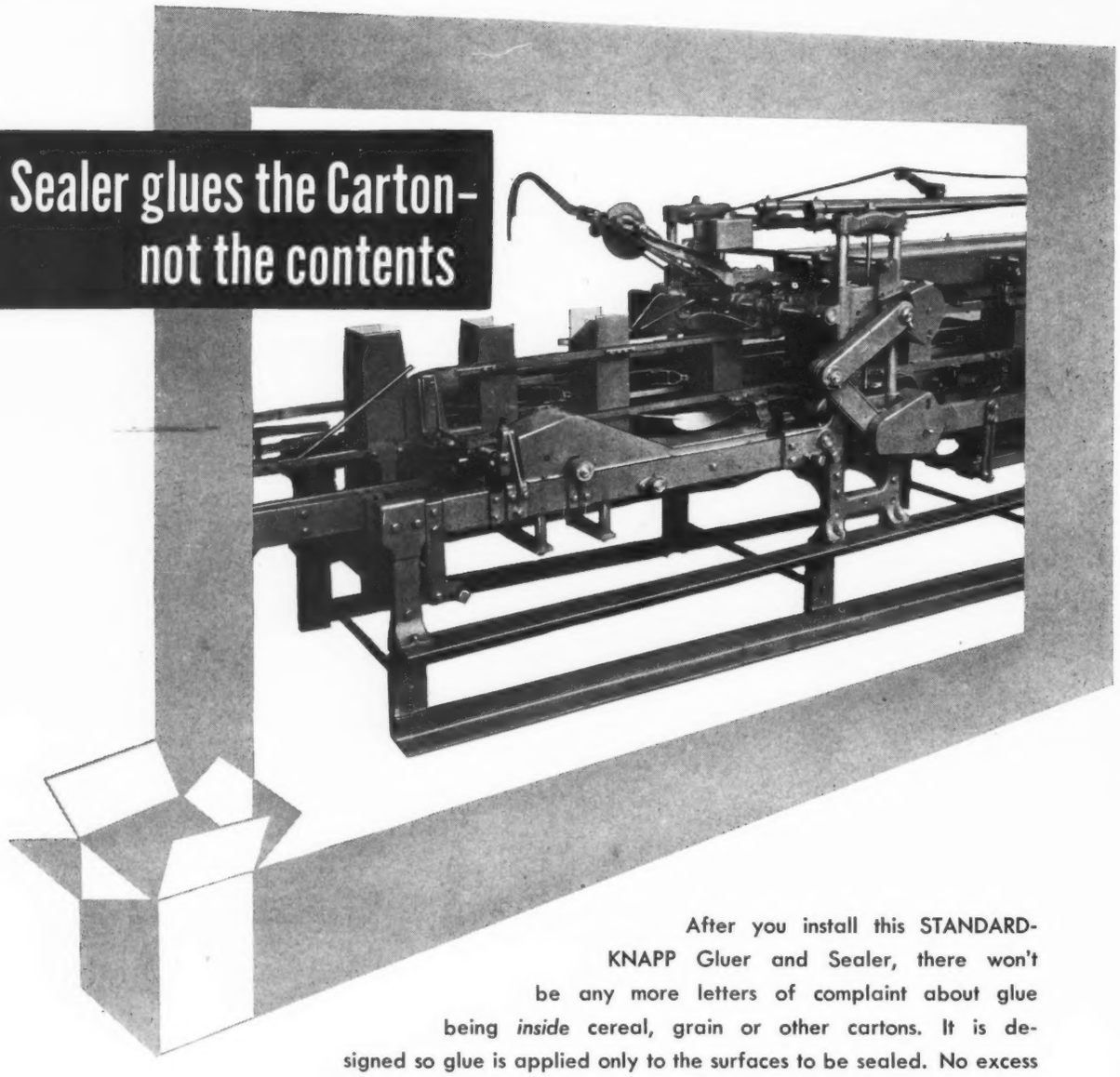
WARNERCRAFT

Finest Name in Packaging

THE WARNER BROTHERS COMPANY

Makers of set-up and folding boxes of all types, transparent acetate containers, hand made specialties, counter displays and dispensers. Main Office and Factory: 325 Lafayette Street, Bridgeport 1, Conn New York Sales Office: 200 Madison Avenue, New York 16, N.Y.

This Sealer glues the Carton– not the contents



After you install this STANDARD-KNAPP Gluer and Sealer, there won't be any more letters of complaint about glue being *inside* cereal, grain or other cartons. It is designed so glue is applied only to the surfaces to be sealed. No excess can seep into the package during sealing and contaminate the contents.

Like all other STANDARD-KNAPP equipment—can labelers, bottle packers, case packers—the Standard-Khapp Gluer and Sealer can be easily connected to your present conveyor system. Its heavy-duty construction assures dependable, uninterrupted service with a minimum of maintenance. All parts are accessible for easy cleaning.

Our packaging engineers will be glad to show you how the STANDARD-KNAPP Gluer and Sealer and other STANDARD-KNAPP equipment can add to the economy and efficiency of your plant operation.

Standard-Knapp Corporation

MANUFACTURERS OF CASE SEALING, CASE PACKAGING AND CAN LABELING MACHINES
FACTORY and GENERAL OFFICES—PORTLAND, CONNECTICUT

570 Lexington Avenue
NEW YORK 22, N. Y.

221 North La Salle St.
CHICAGO 1, ILL.

145 Public Square
CLEVELAND 14, OHIO

300 Seventh Street
SAN FRANCISCO 3, CALIF.

420 S. San Pedro Street
LOS ANGELES 13, CALIF.

3222 Western Avenue
SEATTLE 99, WASH.

1412 N. W. 14th Avenue
PORTLAND 5, OREGON

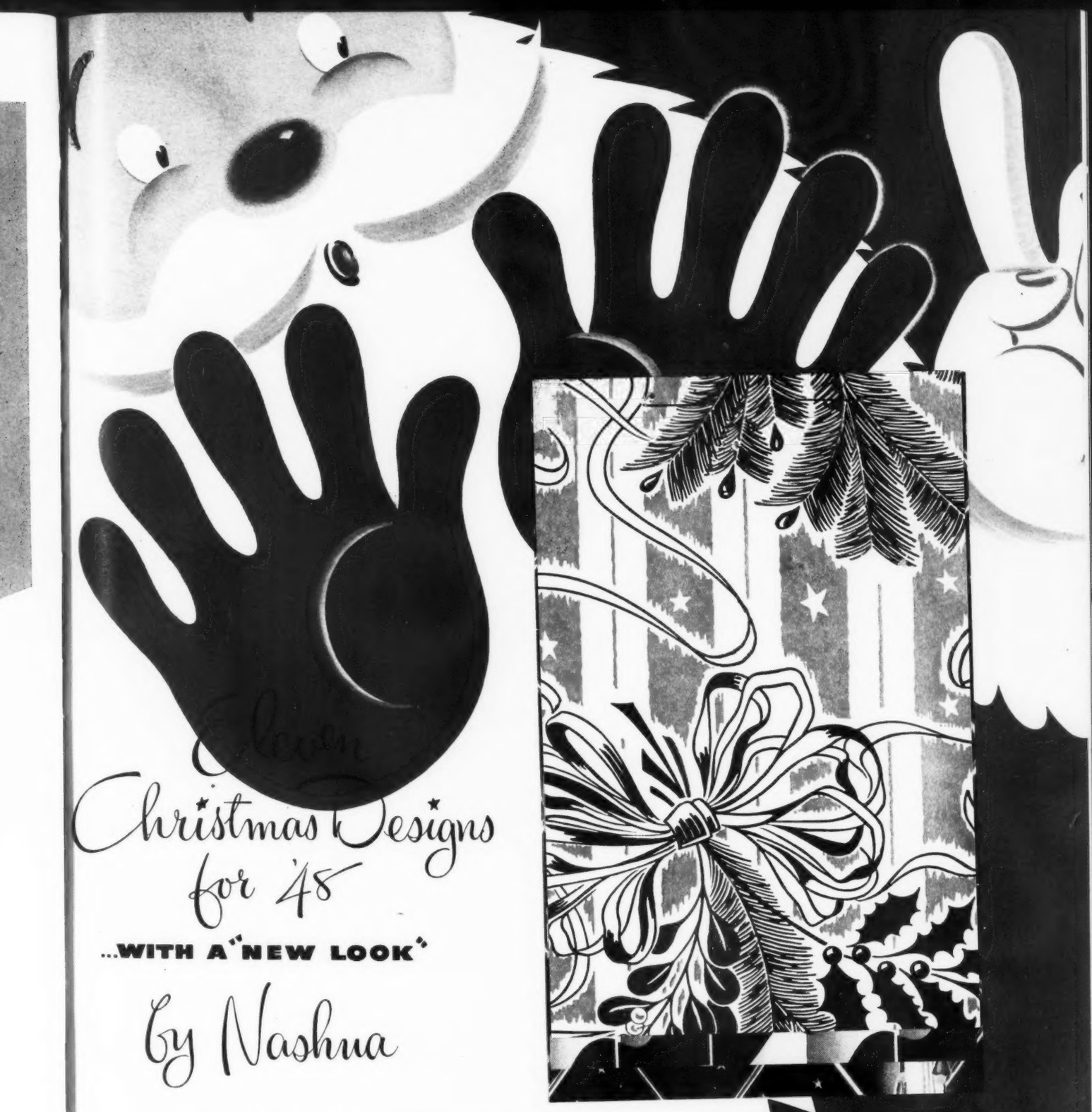
349-350 Paul Brown Bldg.
ST. LOUIS 1, MO.

6 Radcliffe Rd.
ALLSTON 34 (Boston), MASS.

Royal Bank Bldg., Barton & Wentworth Sts.
Hamilton, ONTARIO, CANADA

Orlando
FLORIDA

Windsor House, Victoria St.
LONDON S. W. 1, ENG.



Christmas Designs for '48

...WITH A "NEW LOOK"

by Nashua

Rich, colorful and printed with faithful detail ...these Christmas papers (several of which are shown) comprise a brand new stock line which has never been offered before. Available in 25-inch and 30-inch rolls. Write for Nashua's new, 1948 Christmas sample book showing complete line and range.

NASHUA GUMMED AND COATED PAPER COMPANY
NASHUA, NEW HAMPSHIRE

Nashua Box Stay and Box Paper Distributors:

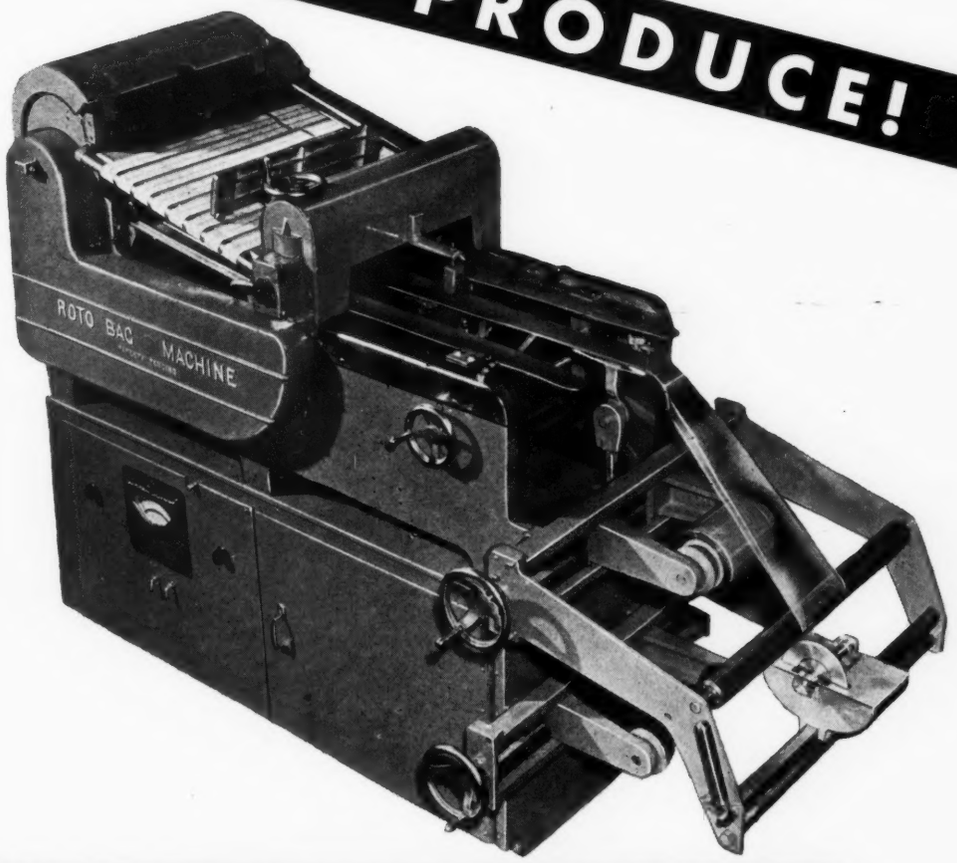
Bradner Smith & Company, Chicago
DePeck Paper Company, Chicago
Handy Paper Company, Rochester
Holyoke Coated & Printed Paper Co. Inc., New York
Paper Corporation, Philadelphia
The Queen City Paper Company, Cincinnati
Frank Schulman Paper Corp., New York
The S. E. Texier Company, Boston

Nashua Branch Offices:

Baltimore
Chicago
Detroit
Los Angeles
New York
Philadelphia
Pittsburgh
San Francisco

holiday greetings

SEE IT PRODUCE!



Visit the ROTO BAG MACHINE DISPLAY

Booth 615, CLEVELAND PACKAGING SHOW

Now you can find out why the whole packaging industry is talking about the new ROTO BAG MACHINE.* See the ROTO on exhibition, in production, in Booth 615, at the AMA Packaging Show in Cleveland, April 26 to 30.

You'll see a high-speed heat sealing machine that makes stronger, better bags from such coated materials as cellophane, diafane and aluminum foil. You'll see ROTO BAG'S revolutionary double-action—action that seals every seam with heat and then applies an additional adhesive reinforcement for extra strength.

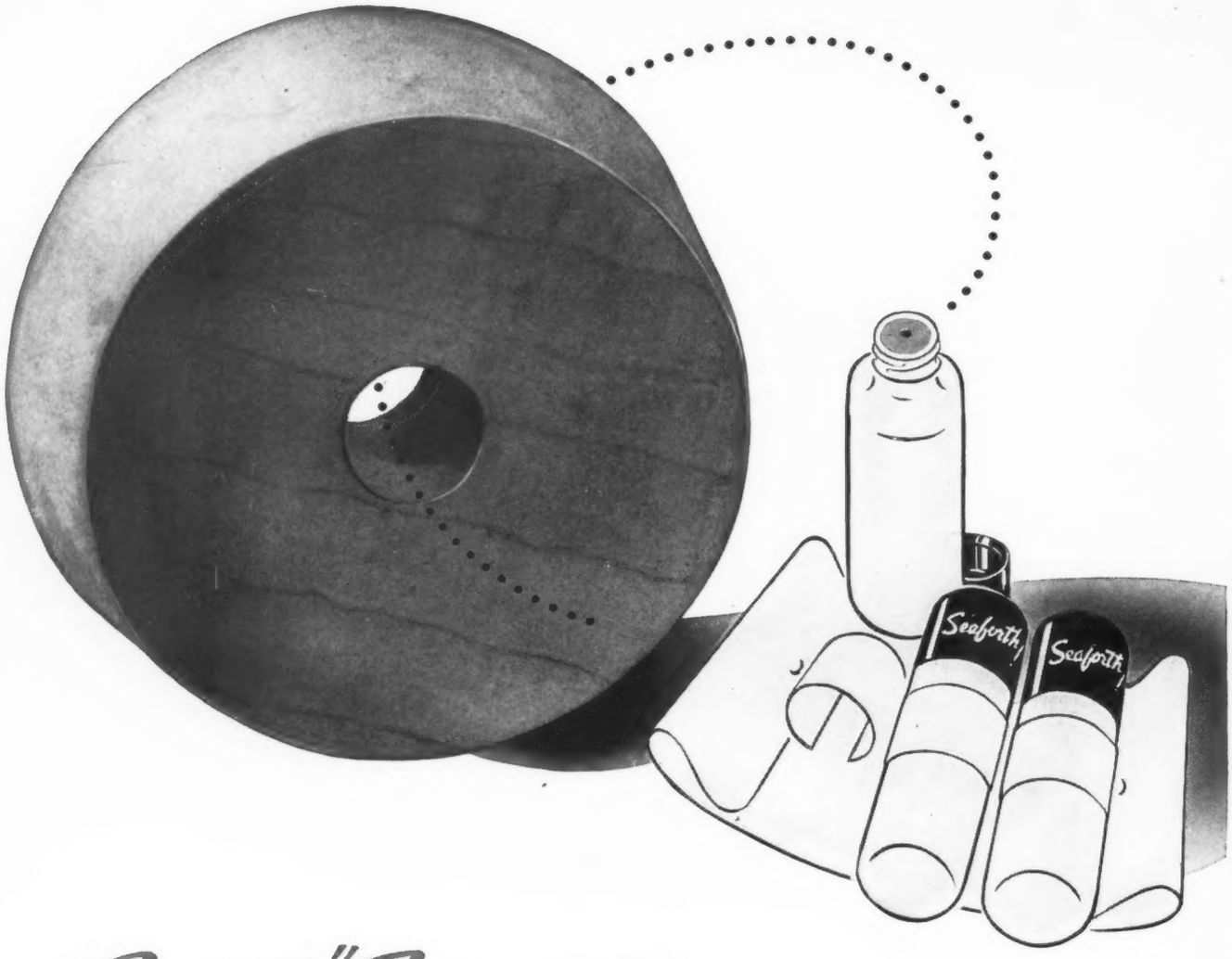
The ROTO BAG MACHINE is simple to operate. It is a heavy duty, precision machined unit, sold with an *unconditional guarantee.*

Remember—Booth 615, AMA Packaging Show, Cleveland, Ohio, April 26 to 30. Be sure to see this machine in operation.

** Patents Pending*

ROTO BAG MACHINE CORP.

310 EAST 22nd STREET NEW YORK 10, N. Y.



Seaforth "Steps forth"

THROUGH A DODGE CORK

Seaforth's famous line of men's toiletries now includes two handsome new travelling kits. Dodge shell corks make each container in these sets a practical dispensing package. Through a Dodge cork, the user conveniently gets the proper amount of these heather-fresh toiletries. Dodge provides Seaforth with high quality corks—exclusively. Accuracy of fit is a "must." Accuracy is an old Dodge habit.

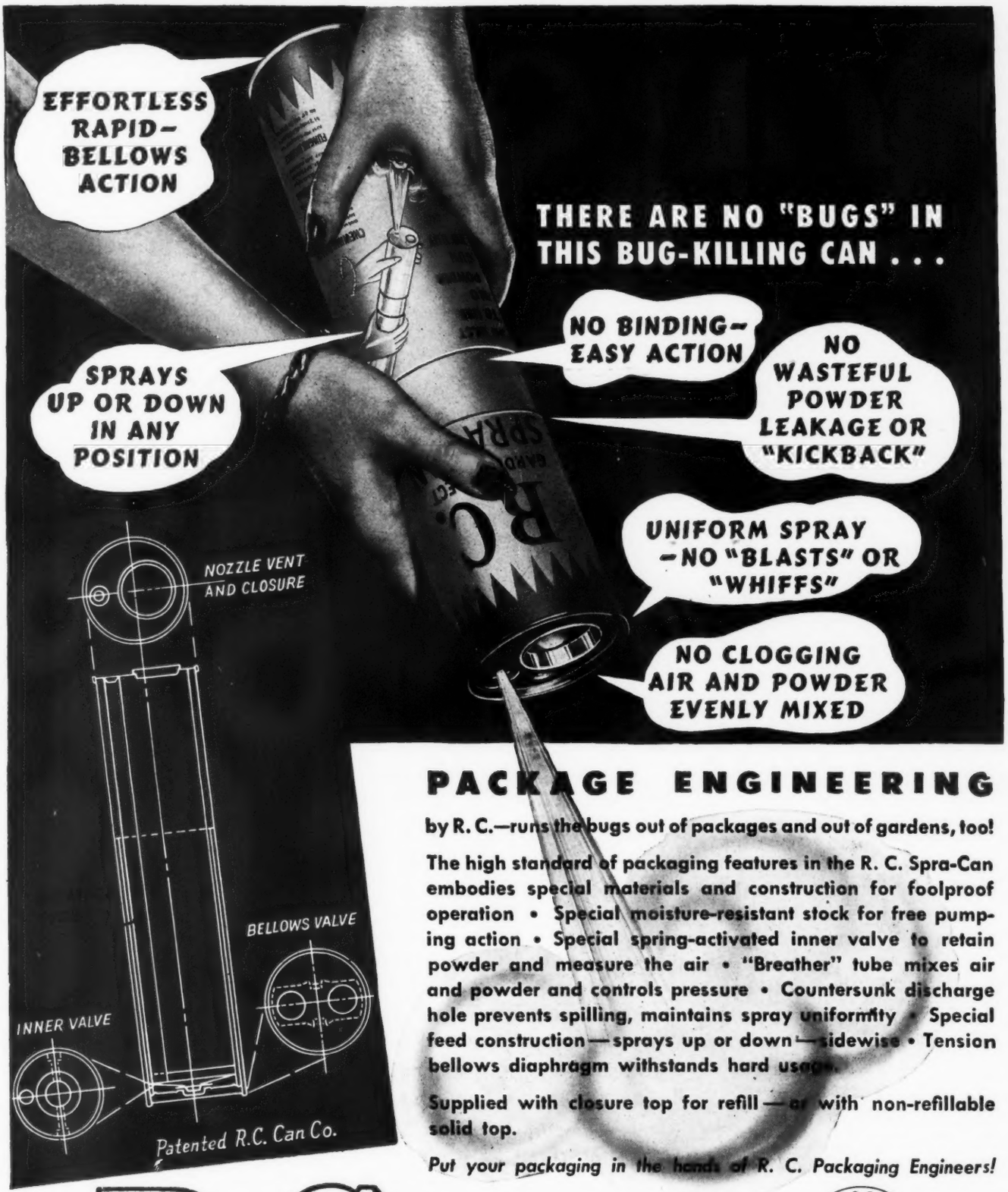
Your needs may be similar to Seaforth's. Or your requirements may call for a closure that individualizes and adds sales appeal to *your* product. Whatever they are, rely on Dodge. From long experience, Dodge knows every phase of cork manufacture.

DODGE CORK COMPANY, INC., LANCASTER, PENNSYLVANIA

Dodge

CORK CLOSURES

DESIGNED TO GUARD THE INTEGRITY OF THE CONTENTS


EFFORTLESS RAPID– BELLOWS ACTION
THERE ARE NO "BUGS" IN THIS BUG-KILLING CAN . . .
NO BINDING– EASY ACTION
SPRAYS UP OR DOWN IN ANY POSITION
NO WASTEFUL POWDER LEAKAGE OR "KICKBACK"
UNIFORM SPRAY –NO "BLASTS" OR "WHIFFS"
NO CLOGGING AIR AND POWDER EVENLY MIXED
NOZZLE VENT AND CLOSURE
BELLOWS VALVE
INNER VALVE
Patented R.C. Can Co.

PACKAGE ENGINEERING

by R. C.—runs the bugs out of packages and out of gardens, too!

The high standard of packaging features in the R. C. Spra-Can embodies special materials and construction for foolproof operation • Special moisture-resistant stock for free pumping action • Special spring-activated inner valve to retain powder and measure the air • "Breather" tube mixes air and powder and controls pressure • Countersunk discharge hole prevents spilling, maintains spray uniformity • Special feed construction—sprays up or down—sidewise • Tension bellows diaphragm withstands hard usage.

Supplied with closure top for refill—or with non-refillable solid top.

Put your packaging in the hands of R. C. Packaging Engineers!

R·C· CAN COMPANY

Manufacturers: fibre cans, tubes, spools and cores

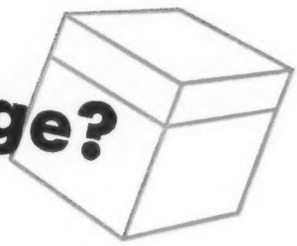
R. C. CAN CO. The Stamp of Quality ST. LOUIS, MO.

BRANCH FACTORIES: ARLINGTON, TEX.; RITTMAN, O.; KANSAS CITY, MO.

SALES OFFICES:

C. E. DOBSON, 819 Carondelet Bldg., New Orleans 12, La.
S. W. SCOTT, 608 McCall Bldg., Memphis 3, Tenn.
CAN SUPPLY CO., 1709 W. 8th St., Los Angeles, 14, Calif.
C. J. TAUGHER, 1628 W. Wisconsin, Milwaukee 3, Wis.
R. J. WATERS, 516 Fifth Ave., New York, N. Y.
EDWIN F. DELINE CO., 224 W. Alameda, Denver 9, Colo.
W. L. BENNETT, 126 S. Third St., Minneapolis 1, Minn.
L. C. MORRIS CO., 1125 Spring St., N.W., Atlanta, Ga.
H. K. GRINSTEAD, 633 S. Fifth St., Louisville, Ky.
ALLIED PAPER SPECIALTY SALES
P. O. Box 1082, Pittsburgh 30, Penna.

planning a prime package?



The whirling quandry of packaging problems is a never ending search of the most for the least. The first consideration in planning your product packaging will be the versatile characteristics your product package needs. It's this extra versatility that's custom built into a set-up box which makes more and more manufacturers choose this type of container.

If your product needs greater see-ability, better display value, added product protection and profitable take-home value, you'll find these features at no extra cost in a set-up paper box — and added product sales, too. More versatility can be built into a set-up box at no extra cost than in any other container.

Investigate these "sales appeal" packages today. See your nearest set-up box manufacturer.

NATIONAL PAPER BOX MANUFACTURERS
Association

AND COOPERATING SUPPLIERS

Liberty Trust Building • Philadelphia 7, Penn.

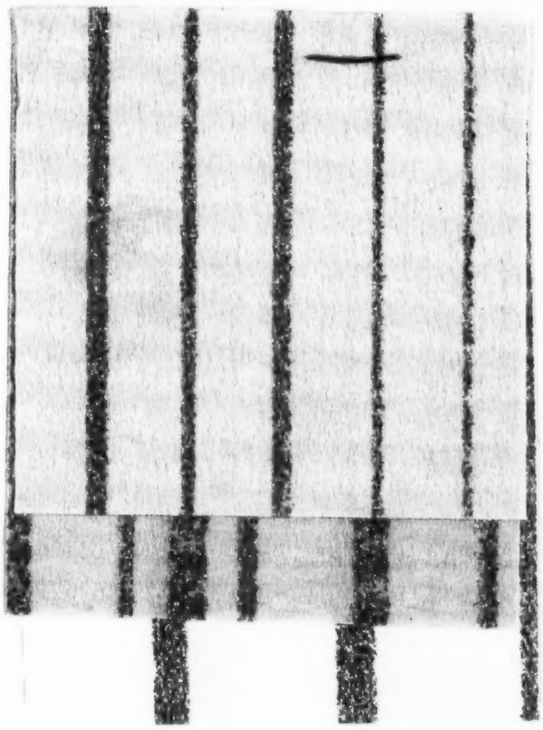
FOR INFORMATION OR SERVICE • CONSULT YOUR NEAREST SET-UP BOX MANUFACTURER

NEW!

STRIPED RAYONEZE

(ALL RAYON — NON WOVEN FABRIC)

AS INEXPENSIVE AS PAPER



AS LUXURIOUS AS FABRIC

Drape your product in luxury by draping its package in rich-looking Striped Rayoneze fabric.

Apply Striped Rayoneze as a surfacing material or as a lining to add beauty and eye-appeal to any package. In addition to the colors illustrated, Striped Rayonese is also available in maize, light green and orchid.

Inexpensive Striped Rayoneze is a non-woven all rayon fabric that can be glued, sewn or slit into ribbons. It comes in 40″ rolls, 25 or 50 yards long.

Write for a Rayoneze sample book.

Gustave RUBNER Inc.

112 WEST 44th STREET • NEW YORK CITY • MEdalion 3-0526

Introducing
Plastafol*

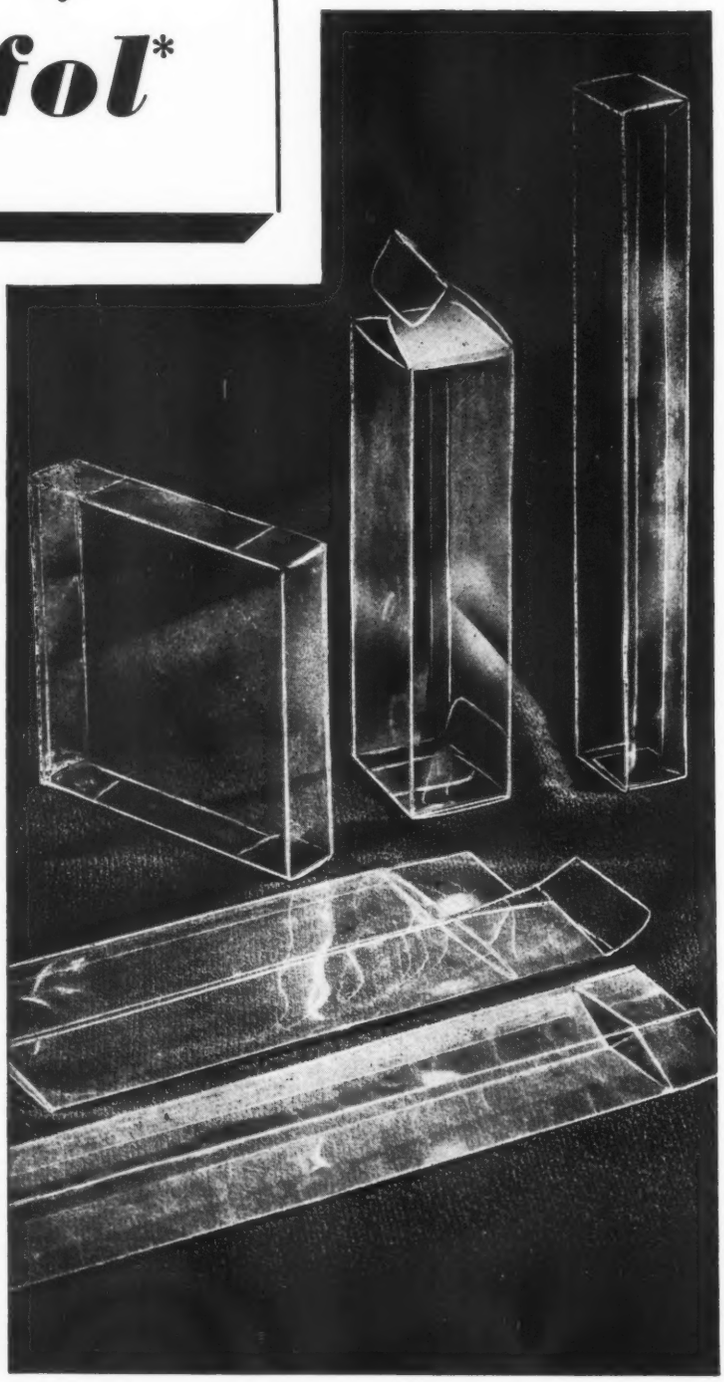
The New *ALL-TRANSPARENT* FOLDING CARTON

A window-clear plastic box at a new low cost.

Ships flat . . . folds into shape in fractions of a second.

Available in large runs . . . tuck-end or glue-end.

Your message printed in permanent, scratch-proof color.



Now you can give your product all the extra sales appeal of individual packaging in transparent plastic cartons—at new low cost.

The new 100% transparent PLASTAFOL carton costs less per unit because it's mass produced by a patented process.

Folded flat for shipment, the PLASTAFOL carton saves freight—can be set up fast, by machine or by hand, with big savings in labor charges.

For very slight additional cost, we print your message on PLASTAFOL cartons in colors guaranteed not to scratch, rub or wash off.

Don't miss this new merchandising opportunity. Write today for information. We welcome comparison.

* *Trademark*

TROTH • BRIGHT • PAGE

Main Office and Plant:
Paoli, Pennsylvania

Sales Office:
Land Title Building, Philadelphia

The PLASTAFOL carton is protected by present and pending patents.

How to COMPETE with a Ball Game...

To catch the customer's eye when the competition is keen, package your candy in sparkling Alcoa Aluminum Foil. It gleams, it glitters, it swings the sale!

Alcoa Foil can serve as a mirrorlike background for an almost limitless variety of colors and designs. Transparent and opaque inks or lacquers can flash your name and message . . . embossing adds a third dimension to the surface that says "Quality" to customers.

However you use versatile Alcoa Foil, as a wrap, bag, carton or label, you'll steal the show at the point of sale.

For more information on packaging that *sells*, write to ALUMINUM COMPANY OF AMERICA, 2129 Gulf Building, Pittsburgh 19, Pennsylvania.

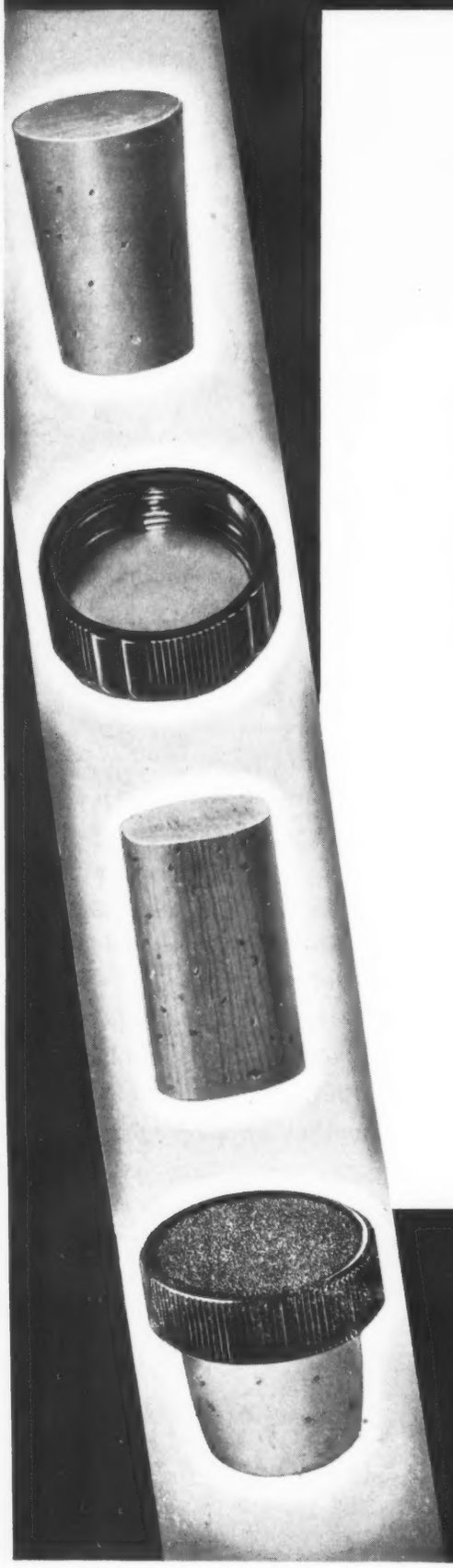
ALCOA

ALUMINUM

ALCOA ALUMINUM FOIL

THE QUALITY PACKAGING MATERIAL FOR QUALITY PRODUCTS

GOOD PACKAGING BEGINS WITH GOOD SEALING



GOOD SEALING BEGINS WITH CORK

There is nothing like cork to seal the freshness and purity of glass-packaged drugs, cosmetics, foods and other products.

The success of the package—and the product—depends upon the reliability of the cork seal. Mundet Cork Closures are made from prime "pedigreed" cork, selected by Mundet representatives in the Mediterranean regions where the world's finest commercial cork is grown.

Mundet Cork Closures are made in types and styles for every sealing purpose. Get in touch with us now for practical suggestions on modern sealing with cork. Mundet Cork Corporation, Closure Division, 7101 Tonnelle Avenue, North Bergen, N. J.

ATLANTA
339-41 Elizabeth Street, N.E.

CHICAGO 16
2601 Cottage Grove Avenue

CINCINNATI 2
427 West 4th Street

DALLAS 1
505 Southland Annex

DENVER
The Stone-Hall Co.

DETROIT 21
14401 Prairie Street

HOUSTON 1
Commerce and Palmer Streets

JACKSONVILLE 6, FLA.
800 E. Bay Street

KANSAS CITY 7, MO.
1428 St. Louis Avenue

SAN FRANCISCO 7
440 Brannan Street
and
J. C. MILLETT CO.
118-32 Sacramento St.

LOS ANGELES (Maywood)
6116 Walker Avenue

LOUISVILLE 10
1416 Arbegust Street

NEW ORLEANS 16
315-325 N. Front Street

PHILADELPHIA 39
856 N. 48th Street

ST. LOUIS 4
2415 South Third Street

In Canada: Mundet Cork & Insulation, Ltd., 35 Booth Avenue, Toronto

MUNDET CORK CLOSURES

It Will Pay You To Be a Whiz at This Quiz

Quiz yourself for fun and profit on these package ink questions: 1. Where can I get a compact guide to printing inks for packaging? 2. Before my package goes to press, what can I do to get a better printed result? 3. How can I get uniform printed colors on packages of different stocks? You'll find the answers to these questions in column 4 below, and additional information on these same subjects in items on this page.

1437 Little Words—All on Inks for Packaging

Small enough to fit in your vest pocket if you want it there—that's how compact and convenient you'll find the IPI Guide to Printing Inks for Packaging. It contains 1437 words on the selection of printing inks for packaging. There is concise, helpful information on bag and label inks, fast drying inks, color control, printing processes, the selection of colors, and many other practical subjects. Copies, so long as they last, are free. Write for one today.

INTERNATIONAL PRINTING INK · EMPIRE STATE BUILDING, NEW YORK 1, N. Y. · MARCH 1948

WE DON'T ENCOURAGE COUNTERFEITING, BUT...

Irvin S. Cobb once said he did not condone athletic competition involving physical violence, but if he had to go to a wrestling match he wanted to sit in the front row where he could hear the bones crunch.

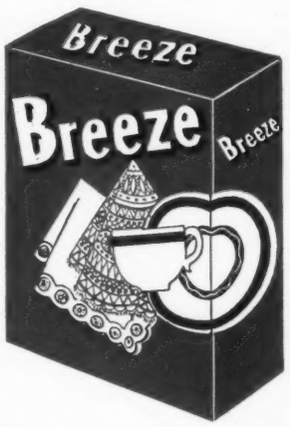
We don't encourage law breaking and we don't sell to counterfeiters if we know it. However, even counterfeiters seem to recognize the qualities of IPI inks. When the Secret Service caught up with a counterfeiting gang in Chicago last month, they found, among other things, a supply of IPI ink (see photo).

The ink was sold to a jobber who has an excellent reputation of 25 years standing. He had no knowledge of how his customer was going to use the ink, and was freed of all blame by the Secret Service.

Chicago Daily News photo, courtesy John Harin

Even counterfeiters use IPI inks. Otto Kerner (left), U. S. Attorney and Harry D. Anheier, Secret Service Chief, examine counterfeit printing plates and fake money, after rounding up the nation's largest counterfeiting ring. A supply of IPI inks bought through a jobber was also found. Somebody did a darn good job of color matching—but don't ask for samples!

THEY MATCHED THESE COLORS LIKE A BREEZE



The new Breeze carton of Lever Brothers really is under color control. Careful, comprehensive spectrophotometric color data was secured on all preliminary proofs of the Breeze carton on all of the stocks to be used on the job. Thus, recorded measurements with proper tolerances were established before the carton was given executive approval.

The Purchasing Department of Lever Brothers Company, manufacturer of Breeze, says it broke all records in obtaining management approval of the new Breeze color appearance—5 minutes flat.

WHAT TO DO BEFORE YOUR PACKAGE GOES TO PRESS

Simply by calling in your printer *early*, you can do a lot to insure your getting the best possible printing job on your package.

Your printer can tell you how your ideas will print, and how practical they will be to handle in the shop. A suggestion from him may save you a good deal of money.

When you call your printer early, you give him an opportunity to consult with his ink and paper suppliers. As a result, you learn, before your plans are far advanced, whether the colors you have in mind for your package can be matched in printing inks with sufficient resistance to deteriorants and handling.

Sometimes a minor change, which an ink formulator may be able to suggest, can greatly improve the ability of your package or wrapper to "stand up" as well as stand out.

WORKING ON A SURFACE THAT'S HARD-TO-PRINT?

Difficult surfaces—those new plastics for instance—are a pain in the neck to package printers—and to ink makers. Also in this classification of surfaces are glass, metal foils, plasticized cellophane, acetate, and glassine.

IPI is continually developing new and improved formulations for almost every type of surface, including all those listed above. Moral: "Keep in touch with IPI."

INGENIOUS PUROLATOR CARTON USES I.P.I. INKS

It looks simple and it's beautiful to look at—this Purolator carton. The design had to be ingenious in order to ship the cartons flat.

The IPI gloss inks which Alford Cartons, Inc., Ridgefield Park, N. J. used to print the cartons worked beautifully on the Miehle two-color press. If you would like more information on how this carton was printed, ask us for it.

Clever people these package designers. This Purolator carton is an example. Smart, too—they used IPI gloss inks to produce a striking result.

***ANSWERS TO QUIZ:** 1. Write IPI. Guide is free. 2. Consult your printer early. 3. Set up standards and tolerances for color control. Address inquiries to IPI, Dept. M3.*

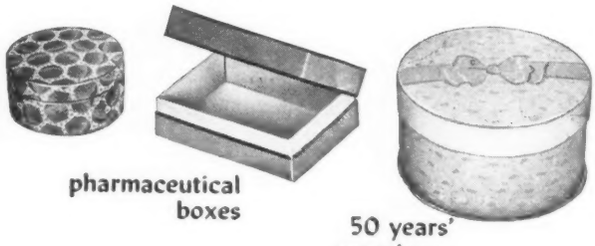
ARE YOU FACE-TO-FACE WITH AN ODOR PROBLEM?

What an odor problem this little fellow could give you if you tried to "package" him...even in a cage! We're happy our odor problems are confined to printing inks... like developing odor-free Vaposet® inks for food wrappers and packages. Too, Vaposet ink sets instantly upon application of moisture, permits immediate waxing or roll rewind. Write for more information.

Charmers

On the Champs-Elysees... Fifth Avenue . . . Wilshire Boulevard . . . Rowell adds exciting charm to cosmetic boxes for face and dusting powder.

Sleek, gay, and attractive, they catch the feminine eye and find their way into the tailleur of the most sophisticated.



precision color printing

pharmaceutical boxes

50 years' experience

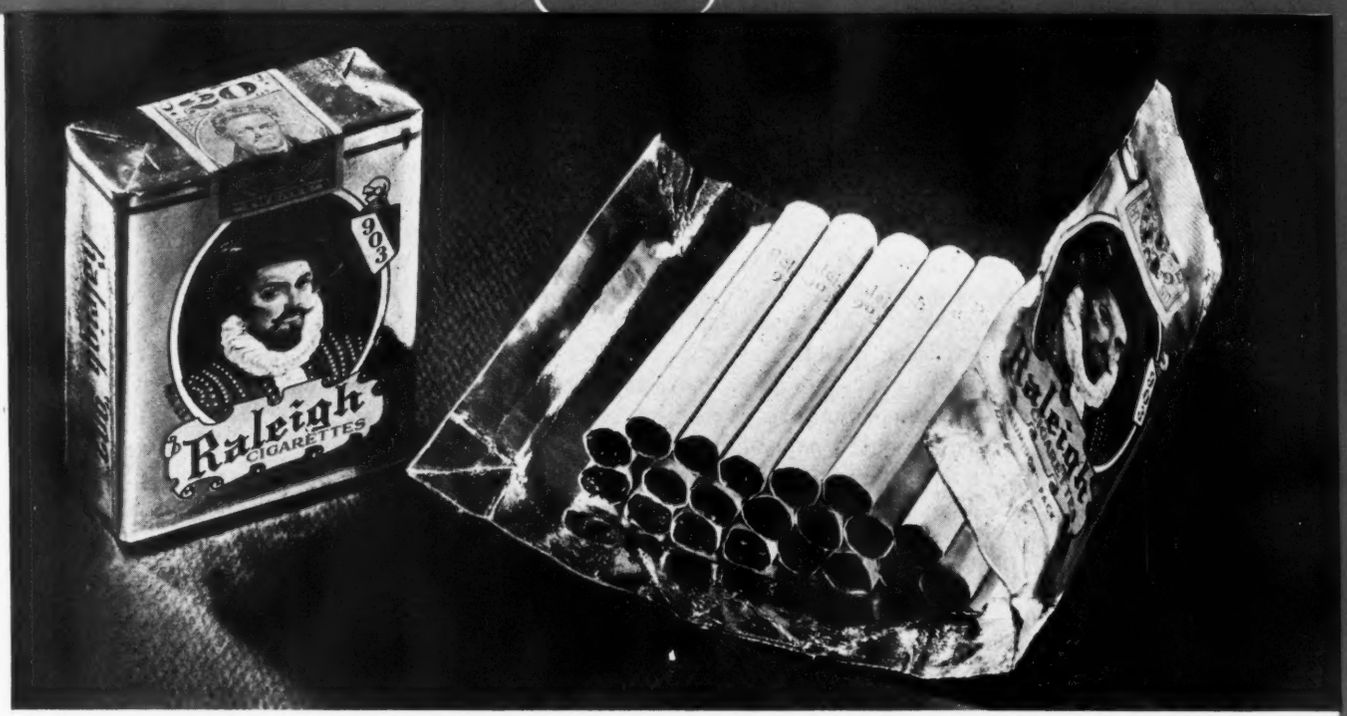
E. N. Rowell Co. Inc.

Manufacturers of Fine Paper Boxes

BATAVIA, N.Y.

Modern packaging

Vol. 21 No. 7 March 1948



REVOLUTIONARY not only in form, but in appearance. The familiar portrait of Sir Walter Raleigh in full color on gleaming aluminum brings new excitement to tobacco counter. All protective elements are combined in composite sheet.

METAL-CLAD CIGARETTES

The first basic change in 40 years: a single sheet—aluminum inside and out—forms package on existing machinery, giving increased protection and eye appeal

The eyes of the two-billion-dollar cigarette industry are focused today on Detroit. There Brown & Williamson Tobacco Corp. is pioneering in a one-city introduction of the first basically new package for the standard "20's" since cigarettes first became the universal American smoke. By mid-April, the Detroit change-over is expected to be complete and from there the new cigarette package is scheduled to move into other markets.

Introduced on Raleighs, the Alumidor pack (as Brown & Williamson aptly have named it) is a semi-rigid metal package of aluminum that provides, for the first time, the whole package in one sheet of material. Although it has a thin core of paper, for better handling qualities, the laminated sheet has otherwise the look and the ductility of a fairly heavy gauge of solid aluminum. It is fed from a roll to the cigarette-packaging machine, formed and folded in much the same manner as the conventional wrap—but electronically heat sealed at all edges by means of a special plastic com-

pound processed on the aluminum surface. It uses no glue. It eliminates two additional operations now required on the conventional package to apply the printed paper label or cup and the cellophane wrapper. And in its sing e wall it provides a moisture and aromatic retentive ba. rier said to be twice as effective as the four layers of material that heretofore have surrounded the 20's pack.

Every leading cigarette manufacturer is well aware of this development, in active progress for the last two years, and is currently watching, testing and waiting. If this new package lives up to its indications so far, it may well revolutionize packaging procedures in an industry that last year used in excess of 39 million dollars worth of materials for unit packages.

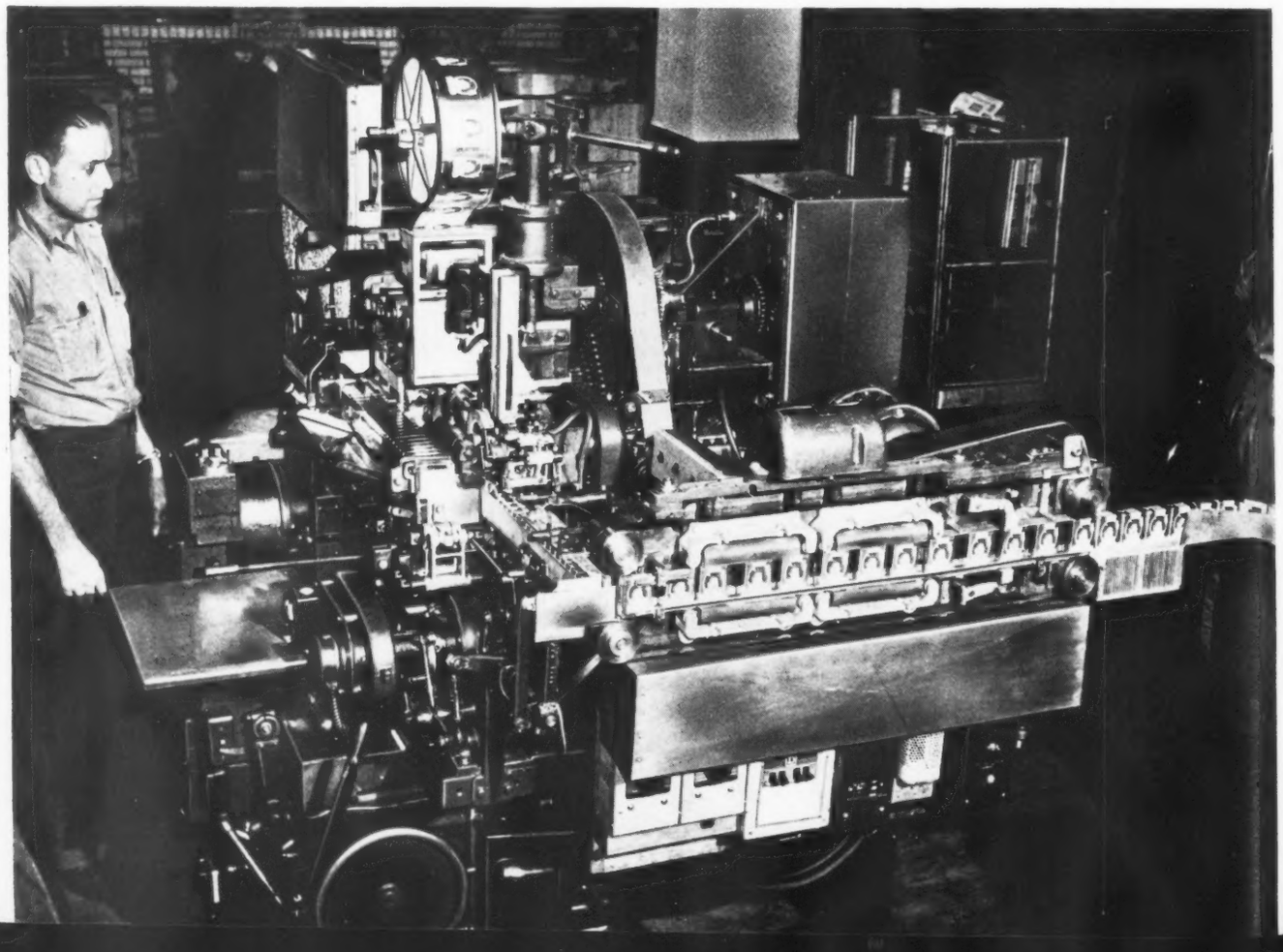
In appearance (except for the brilliance of the aluminum surface and the elimination of cellophane overwrap), the new package is deceptively similar to the old one. To understand the difference, take a standard pack from your pocket and compare it with the actual flat sample of the new Raleigh pack which you see on the opposite page.

In the conventional pack you have: first, an overwrap of cellophane; inside this, a printed paper label or cup, glued with liquid adhesive; finally, an inside wrapper of foil and paper—four separate layers of material requiring four packaging operations.

The fact is that although the cigarette makers have improved their packages periodically over the last 40 years, the improvements have usually taken the form of an added layer of material for added protection, so that the package has "just grown," rather than starting afresh with a basically new material. This policy has seemed necessary because any revolutionary change that would suddenly outmode the machines in which the industry has hundreds of millions of dollars invested would be unthinkable. The significance of the new aluminum pack is that it requires no new machinery, but an adroitly skillful engineering adaptation of mechanism to existing machinery that performs the whole operation and obviates the cellophane overwrap.

The new package combines all four of the protective elements of the old in a single composite sheet comprised of aluminum foil laminated to both surfaces of paper to serve as a core. Existing automatic cigarette-wrapping machinery can be converted to handle it under inventions embodied in patent applications held by the supplier of this new material. The composite sheet is full-color printed by rotogravure (seven colors for the Raleigh packages) on the outside aluminum surface in one gravure high-speed operation by the supplier. During the printing, a new plastic coating having high gloss is applied over the brilliant-color inks to protect them against scuffing and heat. This is followed by the further application of a new heat-sealing

CONVERTED MACHINE, showing continuous steel bands or "tractor sealers" for effecting strong, tight end seals. Conversion begins with removal of many parts, greatly simplifying operation and completely eliminating mechanism for applying paper label or cup. Packages emerge complete. There is no additional overwrapping on other equipment.



THIS IS ALL THERE IS TO IT. This single sheet is the complete package for one pack of Raleighs, heat sealed by specially patterned thermoplastic-coated strip which does not show on sample.

compound in a pattern conforming to the closure seams of the finished package.

The new packaging material, registered by its manufacturer under the name of Ply-Seal Pak, and the conversion of machinery to handle it are the culmination of intensive development work by Reynolds Metals Co.

Hundreds of different types of composite sheet formulations were tried and countless formulations of plastic coatings and heat-sealing compounds were tested before the currently adopted efficient combination was attained.

The machine problem

Briefly, the standard cigarette-packaging machine* operates in this manner: It works by a complex system of cam action and engaging wheels or turrets. Cigarettes are fed from trays to a hopper at one end of the machine. A counting device separates them into 20's, while another mechanism takes each form containing 20 cigarettes to a point where these forms meet the inner wrap of paper and foil, previously cut and formed around an arbor. One of the turrets transfers the cigarettes into the wrap. Another folds end flaps, after which the packages move to that part of the machine which forms, applies and glues the paper cup or wrapper. The revenue stamp is applied just before the completed package leaves the machine. Then the package goes to the cellophane-wrapping machine, which is a separate mechanical operation—not part of the standard cigarette-wrapping machine operation.

The conversion began with the removal of many parts, greatly simplifying the operation of the standard machine. First of these was the elimination of the complete mechanism for applying the paper label or cup, then placing heat-sealing units in each of the 12 stations of an existing forming turret for side-sealing the new aluminum body. New electronic controls were installed for registration and cutting the new aluminum blanks which are fed from a modification of the feed device formerly used for the paper-foil inner wrap. A simple solution of the problem of converting the feeding device to prevent the new material from buckling and wrinkling in the machine was accomplished.

Perhaps the most outstanding features of the converted machine are the continuous steel bands or "tractor sealers" for effecting the strong, tight end seals at the ejection end of the machine. This unique use of steel belts permits just the proper amount of pressure, time and vibratory action for tamping the seals, as well as the cigarette ends, and cooling of the package end closures before they leave the machine, according to the engineers. This accomplishment is even more remarkable in view of the difficult problem of heat sealing through the many end folds of the laminated aluminum material.

When the packages emerge from the machine, they are complete. There is no additional overwrapping.

Machine capacity is given as 125 packages per

* American Machine & Foundry Co., New York.

minute, although on its initial runs, Brown & Williamson have been running the machines at a slightly slower rate.

It is claimed that the standard cigarette-packaging machine can be readily converted in the tobacco-packer's plant without removal from its present location. The conversion steps comprise the removal of a considerable number of parts, a portion of which are replaced by special parts provided by the supplier of the new aluminum packaging material. The converted machine provides excellent accessibility to the entire working tools of the machine, which is conducive to lower maintenance cost.

Package costs

So far, because of the development work and the initial cost of the material, Brown & Williamson say the new wrap is costing them more, naturally, than the standard wrap, but they expect these costs to be reduced as production increases and pioneering expense is amortized. (The cost of packaging materials for the conventional cigarette package is currently reported in the trade to be about $2.20 per thousand.)

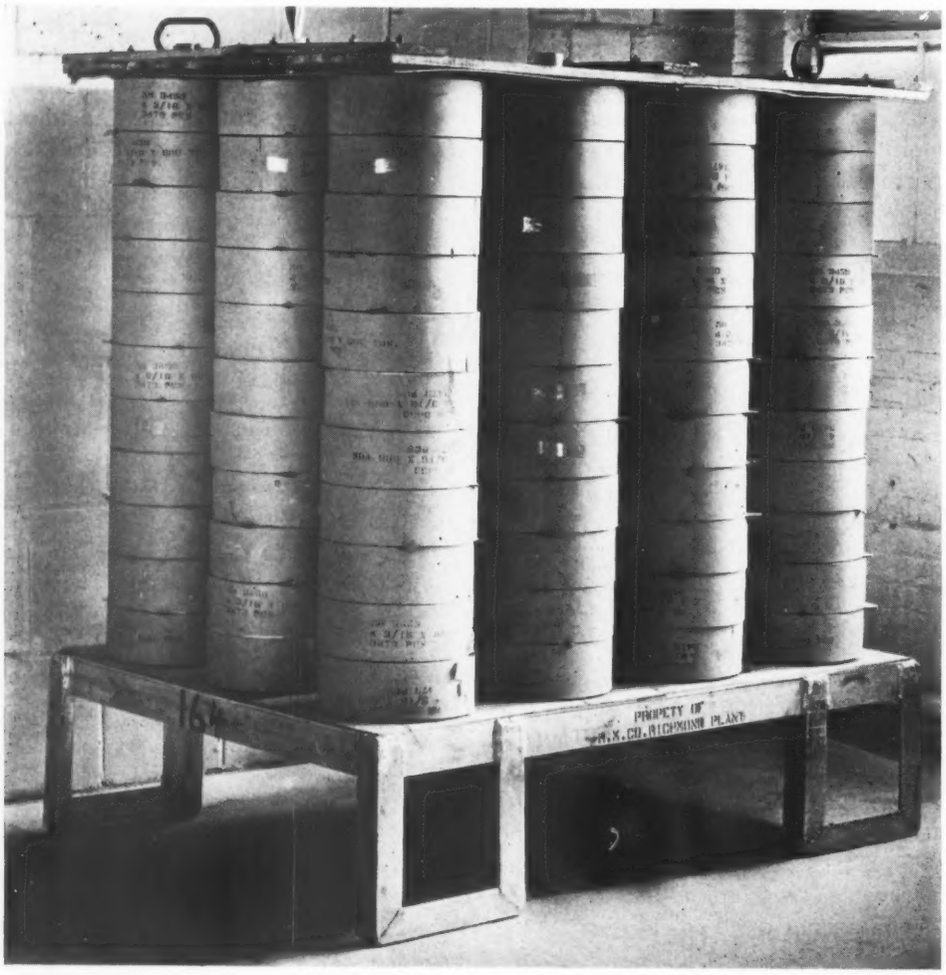
The aluminum people claim that the new material represents so many savings in manufacturing costs, factory space, labor, handling and bookkeeping that when all these factors are considered, the finished packages on a mass-production basis will actually cost less than the standard package.

In the first place, the new wrap completely eliminates the need of all equipment and a substantial amount of floor space required for the cellophane-wrapping operation. It simplifies purchasing and inventory, since only one material is required instead of four. It simplifies handling and storage, since the wrap consists of one continuous sheet supplied in rolls. Many attendant operations, such as constant filling and cleaning of glue pots, are entirely eliminated. Complete accessibility of all parts of the machine, through its simplification, also makes maintenance and servicing less costly, it is said.

Palletized shipment

In the supplier's plants, the material is currently being printed and thermoplastic coated on a continuous sheet six or more packages wide at the rate of 3,000 package blanks per minute. The company is aiming eventually at a production of 6,000 blanks per minute per press. The sheets are slit and the blanks supplied to the user in 12-in. rolls—one package in width.

In shipping, aluminum pallets are employed to carry up to 144 rolls each. Finished rolls are placed



ALUMINUM PALLETS, carrying up to 144 rolls are used for shipping new material. Rolls are placed over 12 aluminum tubes, each tube holding 12 rolls—three one way, four the other. Pallets are covered with protective hood. They can be moved directly from truck or freight car to plant and wheeled to floor where used. Empty pallets may be knocked down and returned to supplier.

TO OPEN package, simply tear it in the conventional manner, as illustrated by this Kool package, also made of the new material and introduced in test areas since last October.

DEAD-FOLDING characteristic of aluminum permits package to be pinched around remaining cigarettes, thus keeping them firm and reducing sifting of tobacco in pocket or purse.

over 12 aluminum tubes on the pallet, each tube holding 12 rolls—three one way and four the other. The pallet is covered with a protective hood and strapped. It can be moved directly from truck or freight car into plant or warehouse and wheeled to the floor where it is to be used. Empty pallets may be knocked down and returned to the supplier.

Merchandising features

The new package provides the cigarette industry with new selling arguments for freshness, flavor and firmness of the pack, as well as obvious new eye appeal. Brown & Williamson are telling this story in an intensive eight-week advertising campaign in the Detroit test area—numerous spot radio announcements daily over Detroit's WJBK, WWJ and WXYZ; full-page introductory ads in the *Detroit News* and *Times*, followed by 1,000-line ads once per week in each of these newspapers for a period of eight weeks, plus cut-ins beamed to Detroit on all Raleigh network shows during this period. More than 5,000 sample Alumidor packs will be sent as gifts to prominent Detroiters.

Some of these arguments are revealed in quotes from the introductory ad, which claims that the package gives twice the freshness and flavor:

"You may not know it, but it's true. Ordinary cigarette packs rob you of smoking pleasure! Rob you of flavor! Rob you of freshness!

"Here's why: The inside of your present pack is lined with paper. And this paper soaks up aroma, steals flavor. If you don't believe it, smell the inside of an empty, ordinary pack—and see!

"What's more, with ordinary cellophane and 'tinfoil' packs, freshness seeps out far too quickly. Thus, your cigarettes get dry too fast.. smoke 'hotter,' harsher.

"That's why the exciting new Raleigh Alumidor pack is revolutionary! It's a pocket humidor of flexible aluminum. Electronically sealed! Aluminum inside, aluminum outside—*double aluminum*—bringing you *double* the flavor and extra freshness."

It is further claimed that the new package is a firmer pack and holds the cigarettes more securely even after they are opened. Because of the ductility of aluminum, the opening may be pinched shut and the package bent around the remaining cigarettes in the pack, thus keeping them in good shape and reducing the sifting of loose tobacco in the pocket or purse. The package tears open easily in the conventional manner.

Brown & Williamson's initial sponsoring of the new package was undoubtedly inspired by the company's package-conscious president, T. V. Hartnett, whose words on the subject are framed and hang on the walls of several executive offices as a daily reminder: "A perfect packet of cigarettes is the cumulative result of little perfections. Until it is reached, we have failed to attain our goal."

The "little perfections" in this case were tested over a long period by quietly trying out the new package on one of the company's other brands, Kools, leader in the mentholated-cigarette field, and accounting for 85 to 90% of all sales of this type of cigarette.

Pre-tests on Kools

Early last fall, Brown & Williamson put test samples of Kools in the Alumidor pack in selected high-traffic-count stores in Richmond, Va. The new packages were placed beside the regular packages. When a Kool smoker came into the store, the dealer asked him if he wouldn't like to try one of the new packs. Postcards asking smokers to write down their comments on the new packs were placed on the counters. Customers were offered two packs of Kools if they filled out the card and mailed it in. The company estimates that about 25% of the cards were sent back. According to these returns, 90% said they liked the new

pack, thought it provided a fresher cigarette, that it protected the cigarettes against crushing, was easy to open and looked well. Further inquiries were made of known Kool smokers in Richmond. Everywhere reaction was laudable.

Following this preliminary test, a market test of the aluminum Kool package was opened in Milwaukee in October. Low relative humidity during the winter months is always troublesome to cigarette manufacturers, as it tends to make cigarettes dry out faster and thereby lose flavor and freshness with the escape of moisture. To date, the company has shipped out something like 50,000,000 cigarettes in the new aluminum packages and wherever they have been received, the reaction to the new package has been favorable. Remarkably good reports have also been received from test Kool packages shipped to the Panama Canal Zone, where relative humidity is high and cigarettes are apt to pick up too much moisture. The company has received many letters from this region commenting on freshness and requesting more of the aluminum packs.

The new Kool package thus provided the initial proving ground, but not the final answer since, as a mentholated cigarette, it was not competing directly with standard brands. In Detroit, the Alumidor pack for Raleighs will be competing with all other popular brands in the standard cellophane-wrapped pack. The company is withdrawing all inventory of standard packs of Raleighs in Detroit and will sell only the aluminum package.

The moisture question

In the tobacco industry, it is an accepted fact that tobacco smokes best when it contains about 12 to 13% moisture. There may be slight differences of opinion as to the exact percentages, but not as to principle. As tobacco loses moisture, it loses some of its aromatic flavors and burns faster. Without package protection, moisture content usually goes down to 9 or 10%, depending upon the variety of tobacco. Usually tobacco does not lose more than that, even in open air, but 9 or 10% moisture does not give a fresh smoke. Much of the research and many millions of dollars spent on cigarette packaging, then, are to prevent this migration of 3 or 4% moisture from the cigarettes. And the efficiency of a cigarette package can be measured by the rate of water-vapor protection it affords.

According to Brown & Williamson chemists, in accelerated tests using a desiccant, Alumidor packages weighed periodically over a 14-day period at 2% relative humidity and 70 deg. F. showed water-vapor loss of 0.7% at the end of 14 days, whereas the conventional packages lost 1.6%. Substantially the same results were obtained in the supplier's laboratories. Further tests are being made by independent sources.

However, the cigarette company feels that the real proof of a fresh cigarette is in the smoking quality, which can only be measured by whether or not it tastes good. They, therefore, employ professional smokers who test smoking qualities similarly to the way wine testers taste wines. These testers have pronounced Kools fresh and with excellent menthol retention even after seven months in the package.

The package is said to be odorless, tasteless and nontoxic, according to the supplier. It is also said that the package resists mold growth, a factor that is important for cigarettes shipped to humid climates.

Eye appeal

The new Raleigh 903 Alumidor packages are revolutionary not only in form, but in appearance. On display, they present an array of gleaming metal with the medallion portrait of Sir Walter Raleigh in full-color printing on the aluminum, giving the familiar identity. Full advantage has been taken of the aluminum surface for the design areas formerly left white on the old paper label. Tiny white, horizontal stripes printed on the clear surface of the aluminum distinguish cork-tipped Raleighs from plain ends.

Cartons for the introduction of the new packages are also aluminum-foil laminated, as are special point-of-purchase pieces to call attention to the new aluminum package. All of this brilliance of metal surfaces brings new excitement to the tobacco counter, it is felt.

Even the Kool package, where the same white background design used on the paper label is reproduced on the aluminum, is greatly enhanced by the use of the aluminum highlights. The portions of the design where the aluminum shows through give a new sparkle that cannot be matched with metallic inks on paper.

Cigarettes are shipped 50 cartons (10,000 cigarettes) to the corrugated shipping case. In the new aluminum Kool package, this quantity weighs 2 lbs. and 3 oz. less than the shipping case of 50 cartons in the conventional pack, according to the supplier of the wrap. This means a considerable saving in shipping costs.

Others expected to adopt it

The maker of the wrap predicts that other leading brands will be in the aluminum package in the near future. The conversion of packaging machines for other companies including several leading brands is now in progress.

Although this is the first material to reach the announcement stage, the trade is full of rumors about similar efforts by makers and converters of foils and films to perfect a laminated single-sheet wrap. The trend seems inevitable.

Brown & Williamson's step, therefore, in adopting the new package is one of the most significant indications that the cigarette industry is due for a package change—the first basic change in some 40 years in a package that, for sheer numbers, is probably not equalled anywhere in the packaging field. In the last year, the cigarette industry used some 18 billion packages. That's why all eyes are on Detroit.

CREDIT: *Ply-Seal package development and manufacture, and machine conversion, Reynolds Metals Co., Richmond, Va.*

This month's COVER PACKAGE*

No. 15 of a series

THE PROBLEM: An established manufacturer of toiletries is presumed to be bringing out a hand lotion which, for him, is a new product. This will be a popular-priced lotion, catering to the mass market and, as such, the package will have to be designed to fit in with modern production and selling methods. Because of previous popular association of the manufacturer's name with other types of products, it is considered desirable to have a design which instantly will identify this product as "for the hands." In view of expected high volume, the idea of a private-mold bottle is not ruled out, but it must be a simple design, capable of economical manufacture. The bottle is to be packed in a folding carton on an automatic machine and it is expected that the carton will carry the burden of the sales message, permitting a simplified treatment of the label on the bottle.

THE SOLUTION: A quick survey at point of sale established the design principles to be applied. The name "Handay" was chosen because it was unique, euphonious and conveyed the use and qualities of the product. The over-all background of feminine hands clinched the identification visually. The feeling of motion in the hands gives dynamic impact. The color scheme of carmine and a healthy color best described as flesh tone—plus well-spotted blacks—is distinctive and fashion-wise. The designer considered that a private-mold bottle shape was essential to lift the product from the grocery store to the cosmetic level and designed one which is graceful yet practical. The dispensing closure—an important selling feature—is made of two plastic parts, the upper section fitting onto the lower part, which is threaded to screw onto the bottle. These plastic units, with the help of the necessary liners, form a tight-sealing closure, making it possible for the consumer to have a restricted or unrestricted flow of the lotion. It is believed that the basic utility of this bottle and cap will attract new users and encourage continued use.

THE DESIGNER: Twenty-five years of experience in the designing of packages, products and sales-promotional material have given Norbert Jay the seasoning which places him in the front rank of America's package designers. His basic art training was at Cooper Union and the Art Students League, but he is one who believes that education never ends; he likes to go into plants for practical schooling in package manufacture and handling. He has lectured on packaging at New York University. Each job is backed up by intensive study of materials, machinery and markets. Among his clients are makers of such diverse products as motor cars, cosmetics, perfumes, razors and blades, cigarette lighters, candy and shoe polish. His work appears frequently in MODERN PACKAGING; recently, packages for American Safety Razor Co. (June, 1947) and Houbigant Chantilly lipstick (Oct., 1947).

NORBERT JAY

* Brand and company names used in the hypothetical design are purely fictitious; the design remains the property of the designer who conceived it for this cover illustration. Any resemblance to any existing package is purely coincidental.

'TYROZETS'
Each lozenge contains 1 mg. of tyrothricin and 5 mg. of benzocaine.
SHARP & DOHME PHILADELPHIA, PA.
TWELVE
'TYROZETS'
Antibiotic-Anesthetic Throat Lozenges
FOR THE RELIEF OF MINOR THROAT IRRITATIONS.
For adults and children, dissolve one lozenge slowly in mouth, and repeat every 3 hours (not to exceed 8 in 24 hours), or as directed by the physician.
SHARP & DOHME PHILADELPHIA, PA.

1. PLUG-TYPE CLOSURE of polyethylene—hollow with top inset disk—has been used on 2,000,000 vials of Sharp & Dohme's Tyrozets, cutting cost and reducing breakage. Vial is molded polystyrene, which now is replacing glass.

POLYETHYLENE CLOSURES

The new flexible plastic with high chemical resistance provides a low-cost solution to many closure problems

That precocious new plastic, polyethylene, is looking more and more important in packaging.

Requiring no plasticizer in its formulation, it is inherently tasteless, odorless and free of all suspicion as to toxicity—making it readily applicable to food products. It is tough, flexible and a good water-vapor barrier, and it retains all these qualities at temperatures far below zero, making it immediately important to the frozen-foods field. It is so nearly immune from chemical attack that it can be used as a closure for practically all products—even most strong acids—without a liner.

With all of these qualities, polyethylene[1] is a low-cost plastic and the price is moving even lower. Cost of the raw material has dropped from $1 a pound to 46 cents. Supply is steadily increasing. Production rose from 11 million pounds in 1946 to 25 million in 1947 and it is significant to note that an estimated 40% of the current output is going into packaging. That is a far higher percentage than packaging takes of any other plastic.

Originally, the major packaging interest was in the film form of polyethylene.[2] Frozen poultry alone accounts for a large share of the material used last year and its use in frozen foods and foods generally is steadily increasing. Lately, attention has been paid to the molded forms of polyethylene, in which, to the unusual chemical properties, is added the unique quality of flexibility even in fairly thick molded sections. The sudden success of the squeezable bottle is a good illustration of the latter property.[3]

Now many packagers are finding special advantages and special applications for molded closures of polyethylene, making use of its high chemical resistance and its unusual resilience. A half-dozen drug manu-

[1] Also known as "Polythene," the Du Pont trade name for polyethylene. Bakelite Corp. also produces polyethylene.

[2] See MODERN PACKAGING, "Polyethylene Packages in Use," Jan., 1947, p. 119; "Printing the New Plastic Films," Aug., 1947, p. 82.

[3] See "Squeezable Bottles," MODERN PACKAGING, Nov., 1947, p. 108.

2. INJECTION MOLDED polyethylene closures include: (A) solid plug-type, (B) screw-type with flexible applicator, (C) resealer for carbonated beverages, (D) regular screw-type, (E) two-piece pharmaceutical plug-type, hollow, with snap-on top disk, (F and G) one-piece, open-ended pharmaceutical cap.

PLATES COURTESY MODERN PLASTICS.

facturers are using a unique, hollow, plug-type stopper for tablet vials, in place of wood-top corks, and in two cases this has led to the development of new types of vials. Low die cost and high-speed manufacture promise a big future for this stopper. Other packagers are using a flexible rod of polyethylene in place of the usual glass rod on applicator-type closures. Cosmetic companies have discovered new appeal in the frosty whiteness (resembling ground glass) and unusual feel of decorative polyethylene closures; some are using the material for bottle-neck inserts in place of cork in shaker-type bottles. In all cases they are finding economy and practicability, because polyethylene (1) is easy to mold at high speed and (2) provides a tight seal and compatibility with product without the use of a liner.

A tight fit can be assured by molding the closure a little larger than the inside diameter of the bottle neck (in the case of plug-type closures), or a little smaller than the outside diameter of the bottle neck (in the case of closures which fit around the outside of the container). The closure can then be forced into place and is held there by its own resilience.

Plug-type closures

The development of this interesting closure for shell vials, replacing the conventional wood-top cork, stems from the curiosity of H. E. Nack, packaging supervisor of Sharp & Dohme, Inc., about the 28-mm. polyethylene screw cap for whiskey which was illustrated in MODERN PACKAGING 18 months ago.[4] He was fascinated by the fact that, without a liner, it contained whiskey without evaporation or leakage. He found, in

[4] See "Polyethylene—a New Plastic and a New Material for Packaging," Sept., 1946, p. 130.

3. APPLICATOR for Dura-Gloss nail polish has nylon bristles set in flexible polyethylene rod. Top is molded urea.

4. NECK INSERT of molded polyethylene replaces cork in shaker bottle for House for Men shave lotion. Metal pin in polystyrene top closure makes tight seal. Two neck inserts are illustrated close up in the foreground.

5. HOLLOW STOPPERS are used with glass vials for tablet products of Winthrop Chemical Co. and Maltine Co., who cite attractiveness, uniformity and flexibility as the reasons for their preference for the use of the stopper.

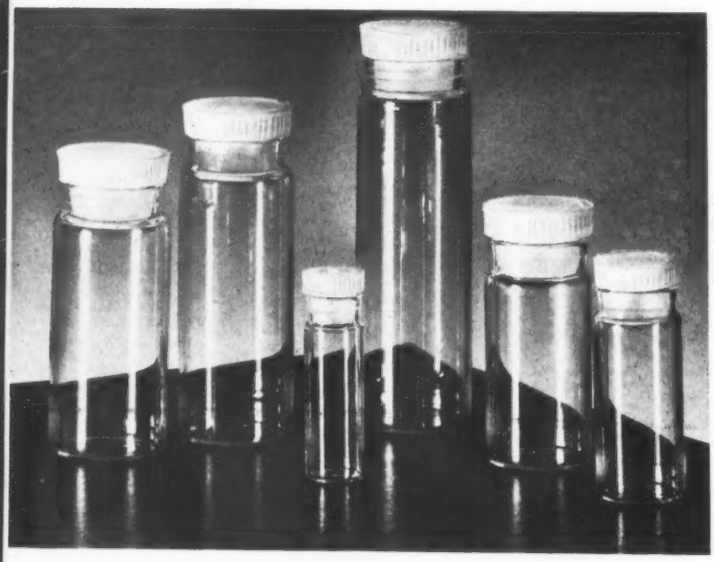


PHOTO COURTESY KIMBLE GLASS DIVISION, OWENS-ILLINOIS.

6. STOCK LINE of vials specially designed for polyethylene stopper is being introduced by glass maker. Vial, of machine-drawn glass tubing, has exceptional optical clarity; machine-tooled neck constriction grips plastic stopper.

fact, that it would hold a high vacuum for months without a liner.

Last September, Sharp & Dohme introduced "Tyrozets," an antibiotic-anesthetic throat lozenge containing tyrothricin. The original package plans called for a glass vial with threaded top and threaded metal closure. In the face of steadily mounting packaging cost, Mr. Nack was out to trim expenses everywhere he could and the volume of the Tyrozets item made it apparent that even a fraction of a cent saved on that package would amount to quite a few dollars in a year's time.

His first step was to abandon the threaded container in favor of a plain flint glass shell vial which, fabricated from a sorting of tubing, cost considerably less. This container required a plug-type closure.

Mr. Nack thought of the rubber-like polyethylene liquor closure that had interested him earlier and recalled that the same material had been used for a plug-type stopper. He contacted the molder and between them they worked out the polyethylene stopper illustrated in Fig. 1 and Fig. 2-E.

The molder had been working with the idea of simplifying manufacture and saving material by making the closure in two parts, with the stopper part hollow and closed by a snap-in disk at the top. This proved to be an ideal closure for Mr. Nack's shell vials because the hollow stopper, with the cushion of enclosed air, was more readily compressible than the solid material, yet would spring back sufficiently for a tight fit. It would adjust itself better than cork to any irregularities in roundness of the vial. The slightly waxy surface characteristic of polyethylene facilitated insertion and removal of the stopper with a minimum of breakage.

The glass shell vial had an inside-diameter tolerance of 0.9 mm. The plug of the polyethylene closure was tapered and designed to seal securely all but the extreme maximum vial—a very small percentage. These were taken care of by the addition of a small annular ring positioned to snap in under the constriction in the vial caused by firing the lip to seal off the rough edge.

The two parts of this closure are molded on specially built, small-capacity, injection-molding machines using a mold which in many instances will cost as little as $600. The machine has a very fast cycle and rapid production keeps the cost down. The top rim, the sides and the bottom of the closure are molded in one piece. A second flat piece (as may be seen in Fig. 2-E) snaps under a lip on the inner side of the rim to close off the top of the closure. This separate top disk usually is produced in color, for pleasing contrast with the milky white of natural polyethylene used in the rest of the closure, and it may, of course, incorporate the embossed or debossed trademark of the packager. In the case of Sharp & Dohme, the top disk is dark blue, with the familiar oval "Sharp & Dohme" trademark.

Mr. Nack was gratified and somewhat surprised to find that this attractive and effective stopper actually cost considerably *less* than the particular type of embossed wood-top cork which he was using at the time.

In a burst of enthusiasm, Mr. Nack decided to go all-plastic. To his further surprise, he found it possible to obtain injection-molded polystyrene vials at a cost comparable to that of the glass shells. A 32-cavity mold will shortly be turning out amber-colored polystyrene vials for Tyrozets, with a capacity of 1,200,000 monthly.

Thus, by a complete change to plastic materials, Sharp & Dohme accomplished a definite saving and achieved an attractive and completely functional package.

No sweeping conclusions should be drawn from this one case. Rarely will plastic materials prove less costly than the old standbys such as glass, cork and wood. In the case of Sharp & Dohme, however, a combination of circumstances produced that result.

The same polyethylene closure (with individual molded trademarks, of course) is now being used with glass shell vials by the Winthrop Chemical Co. for Helmitol tablets, an internal urinary antiseptic, and by the Maltine Co. for Proloid tablets, a thyroid extract. These packages are illustrated in Fig. 5. The Harrower Laboratories use the closure on sample vials of various endocrine products mailed to physicians. In no case has any unfavorable reaction of product with the polyethylene been reported. Because of the cushioning effect of the hollow plastic plug stopper, cotton is usually not required.

All three of the above companies cite as their reasons for adopting the new closure its greater attractiveness, its uniformity in size and its flexibility which compensates for unavoidable variations in the inside diameters of vials.

Stock vial and stopper

One of the principal suppliers of glass packages is now bringing out a line of glass vials (Fig. 6) especially designed for use of the polyethylene stopper, which the company also will supply. This vial is made of machine-drawn tubing, so that maximum strength with light weight is achieved. Uniform wall thickness resulting from the method of manufacture is said to prevent distortion of the appearance of the contents and accounts for the trade name, "Opticlear." The vial, as shown in the illustration, has a special machine-tooled neck constriction, which makes for a tighter fit with the plastic stopper. The company reports that dry prescriptions in this package will remain virtually moisture-free indefinitely, citing laboratory tests indicating that the average rate of water-vapor transfer was only $^{2}/_{10,000}$ of a gram per day. Although this package is being promoted primarily for the prescription trade, it will be available also to wholesalers and manufacturers, in sizes of one, three, five, seven, 10 and 12 drams.

Bottle-neck inserts

The same qualities which recommend molded polyethylene for plug closures also make it advantageous for bottle-neck inserts where a shaker opening is desired. The use of such an insert by The House for Men, Inc., on a shaving-lotion bottle is illustrated in Fig. 4.

The small insert is molded in a 20-cavity die on an 8-oz. injection machine. The diameter of the opening is larger in the center of the longitudinal section, so that the metal pin of the polystyrene top closure contacts the polyethylene only at the top and bottom, giving a liquid-tight fit but minimizing the area of frictional contact so that the pin may be easily inserted and withdrawn. Plastics experts point out that only with the flexibility of polyethylene in stripping from the die would it be possible to mold a piece of such a contour.

As in the case of the plug closure, the flexibility of the material also is important in taking up any irregularities in the shape of the bottle neck, thus preventing leakage between the glass and the insert. Unlike the usual pierced cork, according to House for Men officials, the plastic material does not dry out or swell; uniformity of production is easily attained and no "leakers" have been found so far.

Applicator closures

Flexibility and non-breakability are important advantages in the use of polyethylene in place of the usual glass rod on an applicator closure. The applicator may be simply a thin extruded rod of polyethylene affixed to a conventional closure of polyethylene or other materials.

Winthrop Chemical Co. has adopted an all-polyethylene closure for its antiseptic solution Zephiran Chloride (Fig. 7), a first-aid treatment for cuts and superficial wounds. The cap is an inside-threaded type of conventional design, colored bright red to match the border of the label. The rod of clear polyethylene extending down from the cap is pinched and flattened at the end to give a better spreading surface.

According to H. Vogel of Winthrop-Stearns, Inc., they had had difficulty in obtaining applicator and closure materials that would be compatible with the product, which contains 0.05% acetone and 0.45% alcohol. Polyethylene, with no liner in the cap, has given no difficulty on this score and, in addition, they have found it to be less costly than the materials pre-

7. ANTISEPTIC product of Winthrop Chemical is effectively contained and applied by combination polyethylene screw cap and applicator rod. No liner is used. Rod is pinched flat at the end to give a better spreading surface.

8. DECORATIVE possibilities of polyethylene closures are demonstrated here. Fluted white stopper is used for Desert Flower perfume. Small bottle has inner plug-type stopper with applicator rod, also of polyethylene. Shulton's tests show no loss of essential oils through closure. Segmented sphere of polyethylene forms conventional threaded closure for J. R. Watkins' Concerto cologne. This cap utilizes a cork liner.

viously used. Additional savings result from the fact that they do not have to discard caps because of breakage of the applicator rods. It is believed that the flexible movement of the applicator rod proves advantageous in use and that the user appreciates freedom from fear of breakage should the applicator accidentally be dropped. On the basis of the satisfactory experience to date, Winthrop-Stearns expect to make further use of polyethylene closures—both applicator and plug.

A polyethylene applicator rod recently adopted by Lorr Laboratories for its Dura-Gloss nail polish—a low-cost product which is reported to be the largest-selling nail polish in the world in unit volume—has nylon bristles and is fitted into a molded urea closure (Fig. 3). The applicator shaft is molded of red polyethylene and the bristles are inserted in a separate operation by a different supplier.

The pre-war Dura-Gloss package had a metal-shanked applicator. The wartime package used wood. The company shifted to polyethylene primarily because it showed the amazing ability to resist the ingredients used in nail polish and polish remover. The flexibility of the shaft also is believed to permit greater precision in applying the polish.

For Desert Flower perfume (Fig. 8), produced by Leigh Perfumes division of Shulton, Inc., the applicator is part of an inner, plug-type closure over which fits a graceful, fluted decorative cap (also molded of white polyethylene), as shown in the illustration. With this high-cost product, the advantage of having a non-breakable applicator is obvious. At present, the applicator is used only on the small, one-dram size, but it will shortly appear on the larger size as well.

Decorative closures

The Desert Flower perfume package provides an excellent example of the use of a decorative polyethylene closure. The milky whiteness, the waxy feel and the relative softness of the surface of molded polyethylene have not generally suggested its use for decorative closures, but in this case the designer has capitalized on these very qualities of the material to produce an unusual effect.

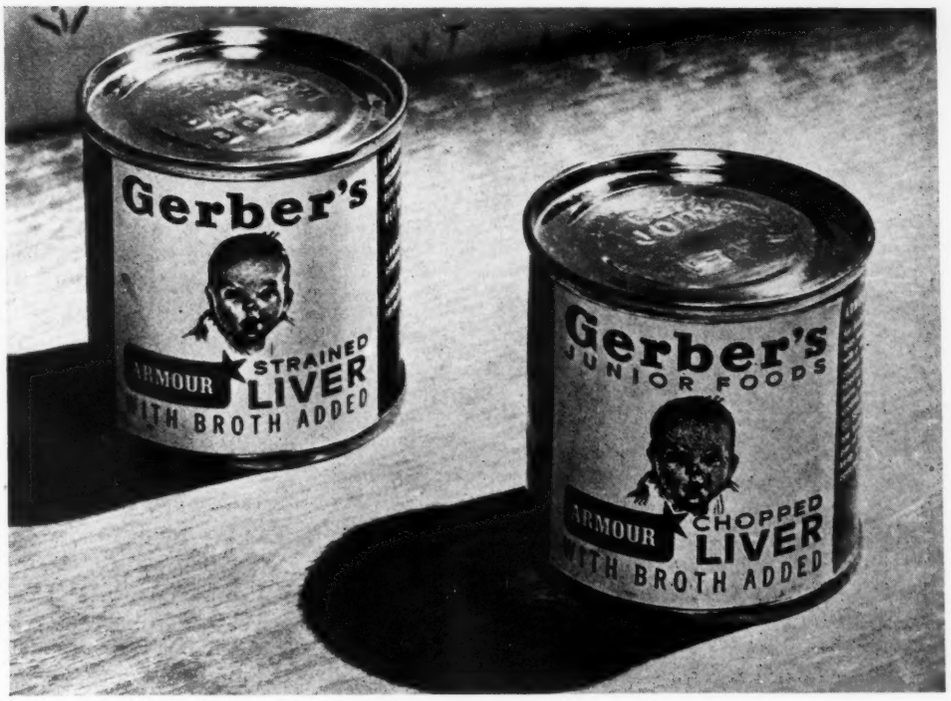
While a plain surface might be unattractive, the graceful shape and deeply fluted vertical lines of the Desert Flower closure produce a cool beauty which is in pleasing contrast to the product name.

These are not threaded closures. The large sized bottle has two lugs on its neck and the inside of the cap has two indentations which fit over the lugs and permit the cap to slip on easily but firmly. When the cap is turned so that the lugs are no longer lined up with the indentations, it is held tightly in place by its own pressure. Where the inner, plug-type applicator closure is also used, as in the small bottle, the outer cap is a straight slip-on closure without lugs. The large bottle, shown in its fabricated acrylic case, is set in a base block of molded polyethylene to complement the closure.

The use of fluting to relieve the dullness of polyethylene surface also is illustrated by the spherical closure for J. R. Watkins Co.'s "Concerto" cologne (Fig. 8). This is a conventional threaded closure and it is the only one illustrated in which a liner is used. The molder believes the liner is unnecessary and others who have had experience with polyethylene closures on this type of product confirm his opinion.

Shulton's experience and tests over a two-year period contradict the widespread belief that the essential oils of perfumes will "walk through" polyethylene. Shulton's tests show "no signs of loss of essential oils," although it is noted that the polyethylene does tend to yellow slightly after long contact with perfume.

However, one of the principal molders of polyethylene closures states that it is his experience that the material will transmit (*Continued on page 190*)



COMBINED TRADEMARK—Gerber baby and Armour Star—is skillfully worked into label design to identify the products with the joint project. Two colors, red and blue, distinguish the strained from the chopped varieties of meats.

Cooperative marketing

Two great names in the food business—Gerber and Armour—combine their skills to package and sell meats for babies

An unusual cooperative venture in packaging that brings together the skills of two of the country's leading food companies is the new line of strained and chopped meats for babies recently introduced by Gerber Products Co. and Armour & Co.

The new products carry a label that immediately identifies them with these two companies—the familiar Gerber Baby and the Armour Star trademark.

This cooperative product came about when both companies were planning a line of meats for babies and were seeking technical advice from each other. During the conferences, it was decided that both companies could benefit by the specialized skills of the other. Armour would bring to the baby-food business its 80 years' experience in meat processing and packaging. Gerber would bring to the joint project two decades of know-how that have contributed largely to the building of the baby-food business to a $117,000,000 industry.

Packed by Armour and marketed by Gerber, the products also mean important savings in capital and manpower by both companies, represented in savings in the cost of distribution to be passed along to the consumer in the form of a higher quality product at competitive prices, officials of both companies say.

Three products—beef, veal and liver—are being sold initially in both strained and chopped form. The meat processing determined the use of metal containers. The products are being packed in $3^1/_2$-oz., steel-and-tin cans in accordance with mothers' preferences for this quantity.

The products are already being sold in more than 10 leading cities and national distribution is anticipated by late summer. Both companies are sharing equally in the cooperative advertising program.

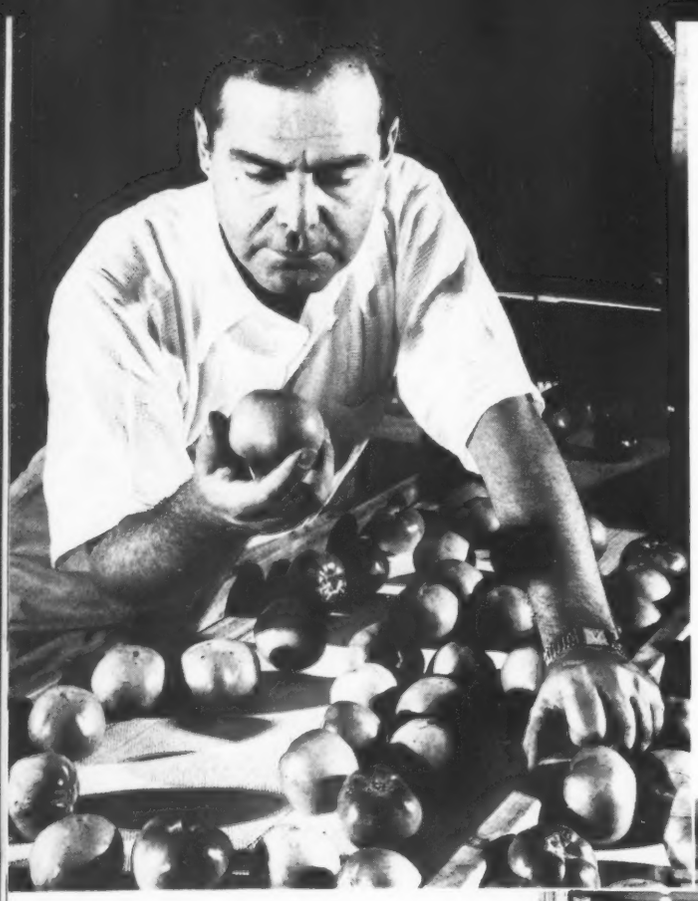
The labels, prepared by one of the country's leading designers, carry the Gerber name at the top. Below the Gerber baby is the Armour Star logotype at left reading on a line with the product name. The two identifying colors—blue for strained foods and red for chopped—used on all other Gerber products distinguish the strained from the chopped meats. The cooperative program is further indicated on the package by the copy, "packed by Armour & Co. for Gerber Products Co." The Armour name is also used in connection with descriptions of the product and the directions for serving appearing on the side panels of the label.

CREDIT: *Design, Raymond Loewy & Associates, New York and Chicago. Cans, Continental Can Co., New York. Labels, Magill-Weinsheimer Co., Chicago.*

TOMATO

The pre-packaging of tomatoes has grown by leaps and bounds and the time is not far distant when virtually all of the out-of-season tomatoes sold for table use in the United States will be pre-packaged. That is the belief and hope of Walter Holm, who has marketed thousands of carloads of tomatoes in the last 17 years and who now is engaged in operating what is said to be the largest and most modern tomato pre-packaging establishment in the United States, the new Walter Holm & Co. plant in Nogales, Ariz., on the Mexican border.

Strict control of ripening, careful packing and packaging and swift delivery to retail outlets will result, Walter Holm is convinced, in more profit for growers,



WALTER HOLM looks over tomatoes, fresh from ripening room, at the point where they are sorted for ripeness. Fruit too green will be returned for further ripening.

GENERAL VIEW of the air-conditioned packaging room, where tomatoes are sorted, weighed, packaged and shipped with machine-like precision. Capacity of the plant is 100,000 packages a day.

SELECTED FRUIT is shunted from main conveyor into one of two packaging lines, according to size. One line may pack three to a tray, while the other may package four.

PRE-PACKER

Walter Holm backs up his faith in the trend toward pre-packaging by building trade's biggest, most modern packaging plant right on the Mexican border

more profit for packagers, shippers and dealers and greater satisfaction for consumers—through reduction or elimination of the shrinkage and waste and loss that are almost inevitable in ordinary marketing procedures and, finally, through arrival of good-flavored, sound tomatoes on housewives' tables during the many months when home-grown produce is not available.

The end result, he believes, will be that more tomatoes will be used if good tomatoes are put up in good packages. He has invested heavily in backing up his belief.

Why Nogales as the location for such a project? Because Nogales is at the gateway to Mexico, one of the principal suppliers of winter tomatoes for the United States, and because from Nogales the Mexican Produce Co., of which Walter Holm became founder-president a dozen years ago, ships about 1,500 carloads a year—a sizable percentage of the several thousand cars that cross the border each tomato season. With the new plant in full operation during the 1947–48 season, Mr. Holm plans to cut down on shipments of green tomatoes in lugs and concentrate on pre-packaging.

"The impression seems to exist," says Mr. Holm, "that all that is necessary in pre-packaging is to put tomatoes in a cardboard boat and wrap the boat in cellophane. That is only one of many phases of a complicated process, but it is a notion that has been abused by unscrupulous packers as a means of disposing of inferior fruit, the over-ripes or the too-smalls. Just to 'dress 'em up' gives pre-packaging a bad name, because housewives refuse to be fooled more than once."

Quality should be the criterion, he insists, and quality is what the Holm company is achieving in the near-ideal artificial climate of the new plant at Nogales where, from the time newly arrived tomatoes are stripped of their wrappings by a vacuum device until they are on the way to retailers' counters, they move with machine-like precision and a minimum of handling.

The tomatoes arrive at the plant "firm green" and here, briefly, are the steps they go through:

After the stripping of their individual wrappers, tomatoes are placed in sterilized lugs and deposited in one of eight heavily cork-insulated conditioning rooms where temperature, humidity and air circulation are precisely regulated, so that ripening may be retarded or speeded as desired. There, protected by a mold-and-decay-control gas, they are kept until the correct degree of pink begins to show. Then they are moved by electric trucks to the packaging room, where a belt carries them before white-aproned women and girls who sort them for color, the "breakers" (fruit at a stage between green and pink) going back to a sterilized con-

PACKAGING LINE. Workers on one side weigh and grade tomatoes and feed them to the workers stationed on the other side who place them in trays and check weigh them.

WEIGHING STATION. Each tomato is individually weighed, placed in numbered rack according to weight. Packer on other side chooses weights to make 14 ounces.

NIMBLE FINGERS of the workers set up the trays and stack them, making sure that the overhead rack along the packers' table is always filled, ready for packing.

EXACT WEIGHT is assured for each package. Two tomatoes are placed in tray on scale, a third selected from numbered rack to bring total to a shade over 14 ounces.

ditioning room where they are held for further ripening.

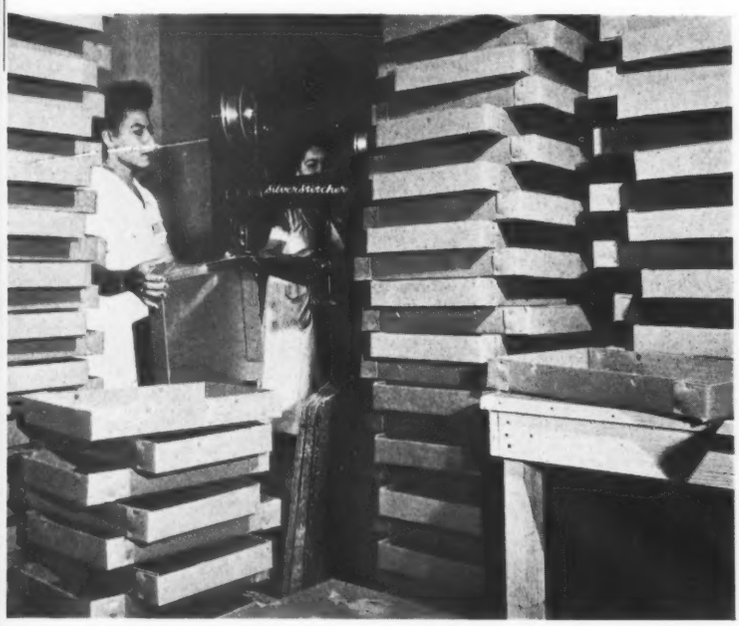
From the sorting line, cross-conveyors carry the pink tomatoes to a grader, where they are examined for blemishes, and to automatic sizers, from which they go to one of three packing lines in graduated sizes after undersized fruits have been discarded and extra-large tomatoes removed for packing in special containers.

At the packing line begins the fast-moving but painstaking operation of achieving exact weight—a shade over 14 oz. for each package. For this process, an ingenious system already in use by some pre-packaging plants in the East is employed. Packers face each other along the line. On one side of the line each packer has before her tomatoes of either three-to-package or four-to-package size, or both; a scale and a device somewhat resembling a card-filing cabinet which has 16 channels, each marked for an exact weight in fractions of ounces. As the packer weighs each tomato she places it in the channel corresponding to its weight.

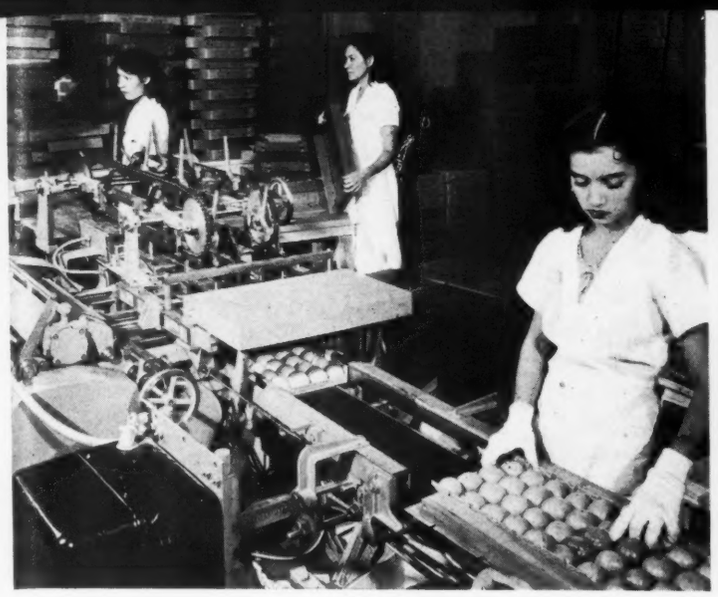
Opposite is a packager who, in the case of the four-to-the-boat size, places three tomatoes in a boat on a scale and, reading their weight, needs only to take an already-weighed fourth tomato from its numbered channel to bring the package to the precise net weight.

A convenient conveyor carries the packages to one of three automatic wrappers, each having an electric eye to register the printed wrapping film and a perforator to eliminate moisture condensation on the film. Each wrapping machine has a capacity of 65 to 90 packages a minute. Wrapped, the boats are placed in shallow,

STOUT CARTONS to protect packaged tomatoes in transit arrive flat, are set up and wire stitched as needed.



PALLETIZED, 800 packages at a time move in shipping cartons by electric trucks to refrigerated holding room.



FILLED TRAYS move on a conveyor belt directly into an automatic wrapping machine. Here each of the filled trays of tomatoes is overwrapped in printed cellophane or acetate.

EMERGING FROM machines, the wrapped trays are immediately loaded into their corrugated shipping containers. Here they are again sorted for degree of ripeness.

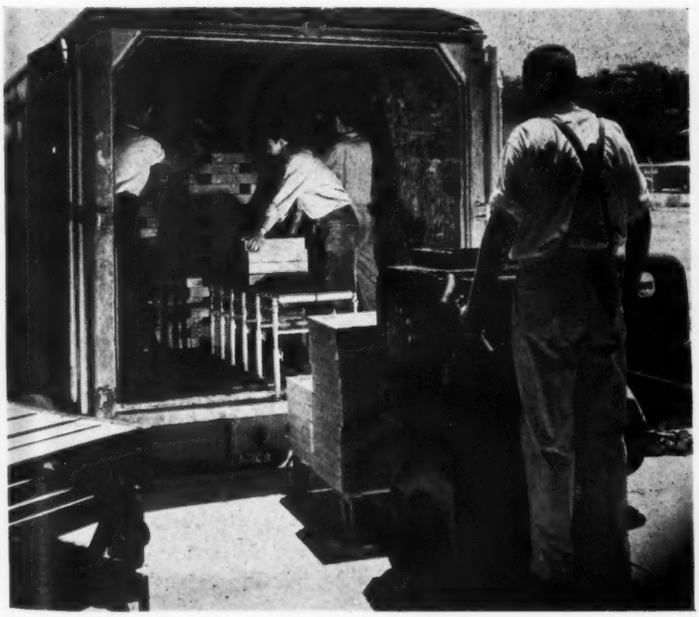
single-deck cartons, 10 to the carton. Finally they go to a holding room where, under controlled temperature, they await shipment by truck or rail.

Climate is controlled not only in the conditioning and holding rooms, but in the main plant also. There, more than a mile and a quarter of copper hot-water tubing, supplies uniform heat and a dozen humidifiers maintain moisture of 60 to 70% R.H.

With conditioning rooms holding nearly half a million pounds of tomatoes at a time, with a plant capacity of 100,000 packages a day and with access to Texas and California crops, as well as to the tomatoes of its main supplier, Mexico, the Holm company entered its first winter of operation anticipating the packaging of a huge tonnage during a nine months' season and—by using its own and chartered trucks—expecting to be able to deliver fresh, firm packaged tomatoes to almost any city in the United States in from one to four days, with arrival in places as distant as Philadelphia and New York on the fourth morning after packaging.

CREDITS: *Cellophane and acetate wraps, The Dobeckmun Co., Cleveland; Milprint, Inc., Milwaukee; Shellmar Products Corp., Mt. Vernon, Ohio, and Zellerbach Paper Co., San Francisco. Shipping containers, Zellerbach Paper Co. Model FA wrapping machines, Package Machinery Co., Springfield, Mass. Roller grader, Food Machinery Corp., Riverside, Calif. Conveyor installation, Bloom Systems, Detroit. Pallets, West Bend Equipment Corp., West Bend, Wis. Electric trucks, Wright-Hibbard Industrial Electric Truck Co., Inc., Phelps, N. Y. Paperboard trays, Standard Folding Trays Corp., Brooklyn. Stapling machine, Acme Steel Co., Chicago. Scales, Detecto Scales, Inc., Brooklyn.*

STAGGERED STACKING inside trucks protects fruit from shock during transit and also facilitates needed ventilation.



REFRIGERATED TRUCKS are traveling billboards carrying Holm name and packages as far as New York.

TRANSPARENT BAGS holding five fittings each arrive at the jobber's warehouse packed five bags to a box. The jobber stocks the bags in a specially designed, molded polystyrene drawer, illustrated at right. Inventory is simplified.

FLAME-SEALED VISIBILITY

Edelmann's brass fittings are packaged in tough polyethylene bags—fabricated and sealed on improvised equipment—and are displayed by jobber in a clear polystyrene stock drawer

Flame-sealed polyethylene envelopes, fabricated on the company's own specially designed equipment and used in conjunction with custom-molded transparent polystyrene stock drawers for the jobber, are sparking the aggressive packaging program just launched by E. Edelmann & Co., Chicago, volume producers of small replacement brass fittings and other products for the automotive trade.

Adoption of the polyethylene bags, according to Robert Edelmann, president of the company, has changed a costly selling job into a fast, economical and efficient merchandising procedure. The plastic envelopes provide increased product protection; permit the jobber to stock three or four times as heavy an inventory in the same amount of space as was possible with the former packages; promote larger unit sales and greatly simplify the jobber's inventory-taking problem.

Tees, nuts, elbows, drain cocks and related parts comprise the types of brass fittings covered by the new packaging program. Most are packed five to a sealed envelope, except for the B60 sleeves, which are packed 20 to the bag, and the B61 nuts, on which the packing count is 10 to the envelope. In addition to the fittings, each bag contains a printed tag identifying type and size and stating the quantity included. With the parts sufficiently visible through the plastic envelope, there is very little opportunity afforded for mix-ups to occur.

The bags are fabricated at the Edelmann plant from continuous rolls of 0.005-in. polyethylene tubing $2^1/_2$ in. in diameter and supplied with a slight yellowish cast which gives the brass parts maximum display value.

The seven lengths of envelopes required to cover the entire line are produced automatically on a machine developed by the Edelmann firm. This unit takes a 500-ft. roll of the tubing, draws the plastic continuously to a point where a flame-sealed joint is made, slices off the envelope and ejects it by means of an air jet. Adjustable for different envelope lengths, the unit will also handle tubing of different diameters and can produce a maximum of 1,600 bags per hr.

After fabrication, the envelopes are assembled in an upright position in trays and taken to the packing tables. Packaging of the small fittings is a hand operation, entailing an accurate count of the parts and slipping the proper identification tag into each package prior to final sealing.

Both hand and semi-automatic flame sealing are used in obtaining the final closure on the polyethylene envelopes. The semi-automatic unit, also developed by the company, conveys the packed bags to the sealing mechanism, holds them in closed position briefly while jets of gas flame are directed against the unsealed edge and projects them into a container from which they are assembled for boxing and shipment The company also makes use of several hand-operated, flame-sealing units into which individual bags are inserted for closure. They have a water-cooled clamping mechanism which holds the bag closed momentarily while flame is applied from hinged jets which swing into close proximity with the lip of the envelope.

The toughness of polyethylene was a primary factor in its selection for these envelopes. As Mr. Edelmann pointed out, many of the fittings have sharp threads or edges which would readily cut their way through many types of films. Polyethylene effectively resists such damage and also provides a cushioning effect, protecting delicate threads against crushing both in shipment and in stocking.

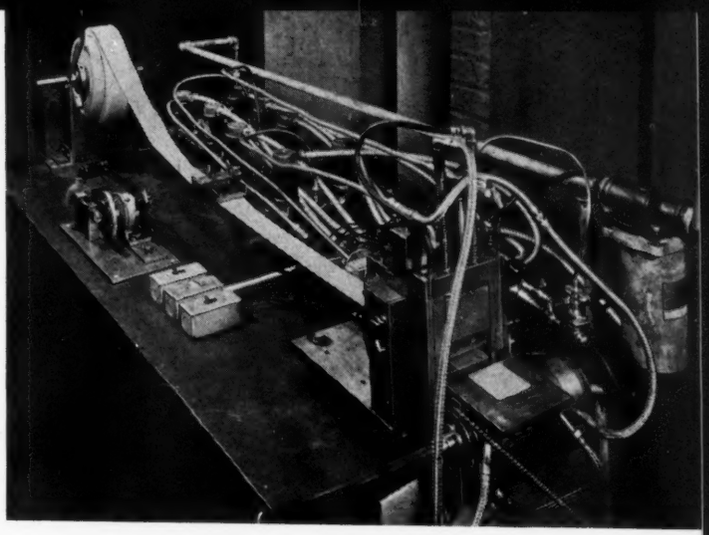
Polyethylene was also considered satisfactory from the standpoint of transparency, while its very high resistance to moisture penetration protects the parts against possible corrosion. It does not tend to crack, tear or split under rough handling and may be stored for an indefinite period without deteriorating. The identification tags, securely sealed within the plastic bags, are guarded against soilage and obliteration by dirt or grease.

Folding boxes

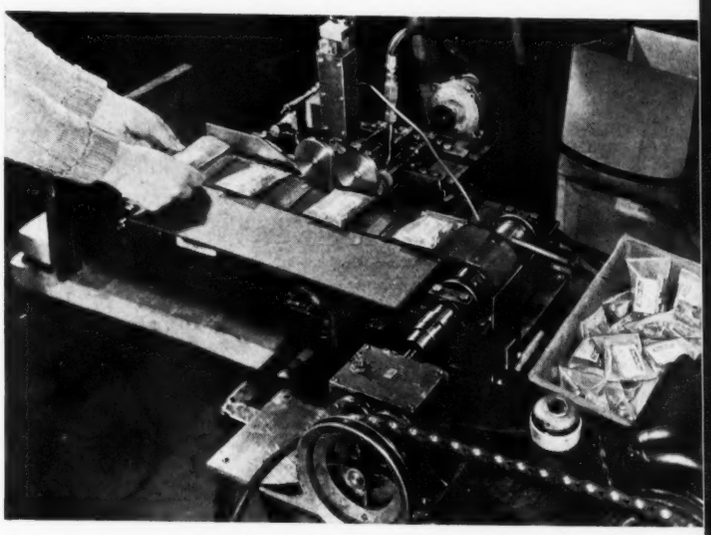
The sealed envelopes of fittings are packed in units of five in tuck-end folding boxes or, for some of the larger fittings, a two-part telescoping folding box is used as the outer container.

Printed in maroon and yellow on white folding boxboard, the cartons feature the designation "Brass Fittings" in reverse against rectangular panels on the top flap and three sides. The entire outer surface of each box carries in yellow the repetitive overprint, "Buy the Bag," which is the theme adopted for the new packaging program.

Except for the overprint, the fourth side panel of each

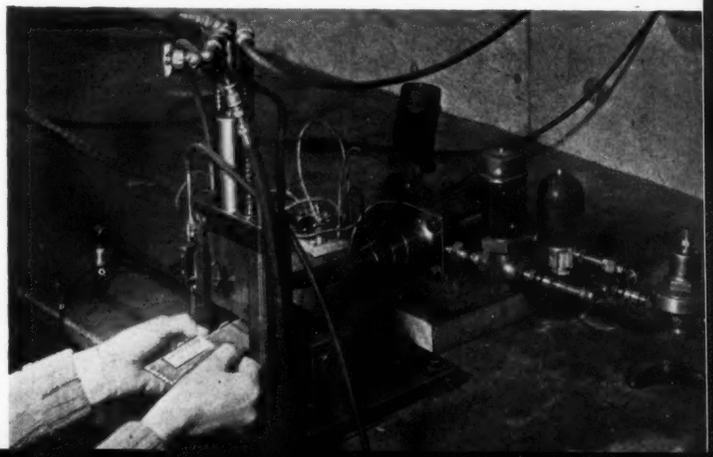


BAG MAKER takes polyethylene tubing from 500-ft. roll, automatically forms flame-sealed joints, cuts envelopes off and ejects them with blast of air. Capacity is 1,600 bags an hour.



SEMI-AUTOMATIC unit for sealing filled bags. Placed on conveyor at left, envelopes are carried beneath wheel which holds the end closed while jets of flame seal the raw edge. The flame is regulated so that it pulses into intense burst just as the bag reaches the sealing point, then subsides until cycle is repeated.

HAND-OPERATED sealer supplements production. Flame is directed against the bag from behind clamp, which descends to hold bag closed during sealing interval. Clamp is water cooled to prevent it from heating up and sticking to plastic.



CLOSE-UP of sealed bags shows labeling technique. Visibility through the plastic obviates purchasing of the wrong type of fitting, while the sealed feature encourages "buy the bag" sales.

box is left plain to permit the application of a gummed label carrying the code name, description and size of fittings contained, a line drawing of the part and the name of the manufacturer. Through the use of applied labels, four box sizes are adapted to the full line of fittings.

Under the company's former packaging program, the small brass fittings were packed in bulk in folding boxes only. This method had several disadvantages. Since they were blind packages which could easily be opened for removal of one or two fittings, the inventory problem was complicated; it was necessary to open each box and check exact product counts. Also, the large amount of unused space in the boxes limited the jobber's working inventory; a good part of the space in the boxes held nothing but air.

Although the new packaging system, which includes both envelopes and folding boxes, is somewhat more expensive for the manufacturer, it is believed that its advantages will more than offset the differential in the long run. In fact, the company is planning to extend the use of polyethylene envelopes to flexible fuel lines, another of its products. For these lines, lengths of $1^1/_2$-in. tubing measuring from 12 to 18 in. long will be employed to accommodate the range of sizes offered by the company.

"Visible stock" drawer

To get the full advantage of his new packages, Edelmann has introduced a specially designed "visible stock" drawer of clear polystyrene for jobbers' stock shelves.

Measuring 3 in. deep, $2^1/_4$ in. wide and $11^1/_2$ in. long, the plastic trays supplant the fibre type which had formerly been used.

They are furnished with the standard, complete, jobber-stocking unit, consisting of a four-sectioned metal bin which holds 224 of the drawers, and are also being made available at cost as replacements for the older fibre trays. Construction features of the tray readily adapt it to the requirements of both large and small jobbers.

The light-weight trays are molded with runners along the bottom which permit them to slide easily in and out on the jobbers' shelves. A recessed finger-pull in the front provides a firm grip and leaves no projecting parts which might be broken off in mishandling. The Edelmann label, printed in maroon and yellow, which illustrates and describes the type of fitting in the tray, is held in an enclosed slot behind a transparent window, protected against dust, dirt and grease. Available to the jobber are labels covering all types and sizes of fittings, as well as others which are blank except for the Edelmann name.

Each tray has a vertical divider about $2^1/_4$ in. back from the front of the drawer, providing a handy compartment in which left-over fittings from opened bags may be stored if necessary. Otherwise, this space may be utilized for storage of an additional supply of full envelopes.

There are also internal slots dividing the rest of the drawer into four equal compartments and jobbers are provided with metal partitions which may be slid into these slots to meet their particular inventory requirements.

Greatest advantages of the envelope and transparent-drawer arrangement are realized at inventory time, when the jobber has but to pull out each tray, count the number of packages through its visible sides and obtain a quick and accurate figure. Under the old system, with its opaque drawers and blind packages, each tray had to be taken out and the individual packages checked for product count. Unopened boxes of bagged fittings may now be held in reserve by the jobber for periodic re-stocking.

Experience with the new Edelmann visual packaging program indicates that the large majority of dealers will buy a complete bag of fittings rather than request the jobber to open a sealed bag and sell only two or three units. Extra fittings sold over a year's time in this manner reduce selling costs and can make a big difference in the jobber's margin of profit.

Although fittings are now packed manually in the plastic envelopes prior to sealing, it is possible that on some types of products, where the volume justifies such action, some automatic or semi-automatic packaging arrangement may be devised. This would require the use of hoppers or other means to feed the correct number of fittings into the bags, which would then be conveyed to the flame-sealing unit.

To accommodate the flexible fuel lines which are later to be packed in plastic sleeves, the company is tooling up for production of a wider plastic tray having the same depth, so that it will fit the jobber's shelves.

CREDITS: *Polyethylene tubing, Plax Corp., Hartford, Conn. Folding boxes, Atlas-Boxmakers, Inc., Chicago. Labels, A. M. Steigerwald Co., Chicago. Molded polystyrene stock trays, Bernard Edward Co., Chicago.*

NEW CRY-O-VAC

An oriented synthetic film offers a highly protective shrink-wrap applied semi-automatically to frozen poultry, meats and other foods

The rubber latex film known as Cry-O-Vac which provided a transparent skin-tight package for poultry, meats, fish and other frozen foods before the war (but was an immediate casualty of the Pacific war) is now being replaced by a new thermoplastic film which is making a strong bid in the frozen whole-poultry packaging field.

The new film differs from the old in that it contains no natural rubber. It is a specially developed vinylidene-type copolymer, compounded so that it is claimed to be odorless, tasteless and flexible at low temperatures and designed for food products. It has an oriented structure which permits shrinking at elevated temperatures.

Its introduction is accompanied by a new easy-to-apply, volume-production method of semi-automatic vacuum packaging said to impart unusual protection against oxidation and dehydration. Equipment consists of (1) a semi-automatic unit capable of vacuumizing and heat sealing four to eight articles per minute per operator or (2) a smaller unit for locker plants and small packers consisting of vacuum pump and reservoir, nozzle and shrink tank.

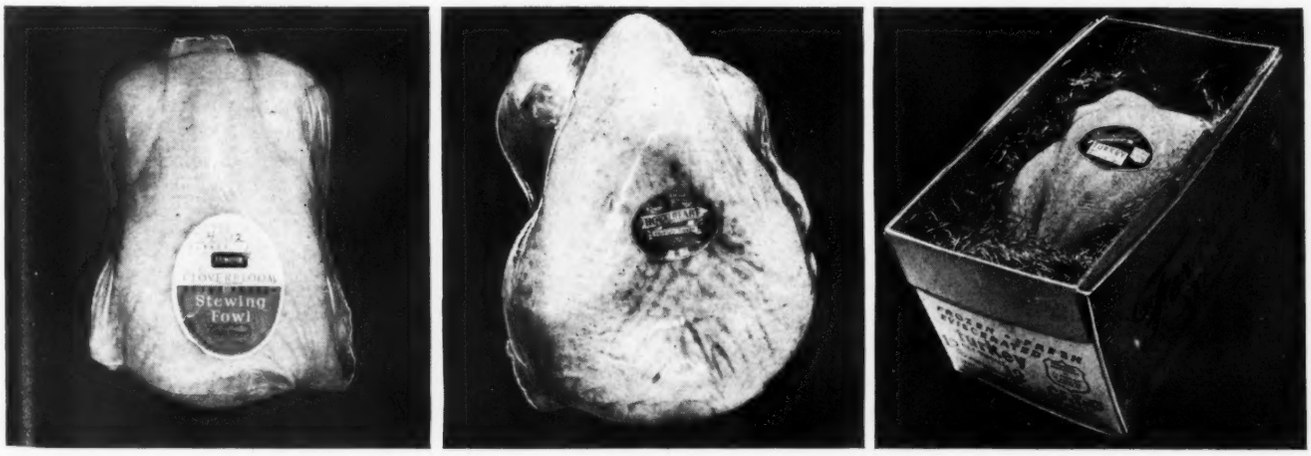
The film is extruded in tubular form and converted into bags with one end open and the other sealed electronically in a semi-circular or square shape. Its chief characteristic is its molecular orientation, which is said to be dimensionally stable at room temperatures, but on application of 185 to 195 degrees heat permits it to shrink to a skin-tight, wrinkle-free fit around the packaged article, thus eliminating all folds and pockets that are contributing factors to dehydration and freezer burn. The new bags, therefore, need not be expanded prior to packaging as the former ones were, but are slipped over the product loosely and shrunk to the contour of the packaged article when dunked in hot water. This feature is outstanding, since it permits faster and easier loading of the bag as well as the "second skin" fit without pockets or folds. The close fit, the improved clarity of the film's transparency and its shiny surface also add greatly to sales appeal of the finished product. The package is easy for the consumer to remove simply by tearing and peeling it off.

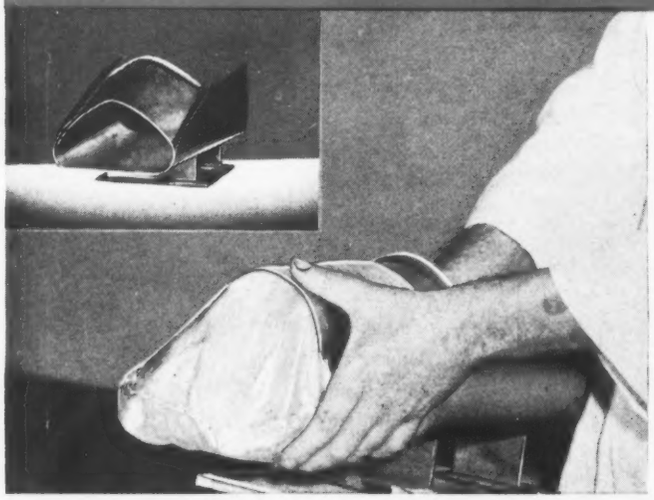
In introducing Cry-O-Vac in its new form, the supplier has taken advantage of technological developments brought about by wartime work in synthetic resins. The new synthetic film is said to be vastly improved in toughness, abrasive resistance, transparency, water-vapor resistance and freedom from brittleness at low temperatures. Research, the maker claims, effected the complete elimination of odor, taste and toxicity.

Several large packers of frozen poultry are now using this improved vacuumizing-package operation. One of these packers, Armour & Co., has three such installations at its plants in Ogden, Utah; Lincoln, Ill., and Creston, Ia., and successfully packaged a large portion of its 1947 quick-frozen poultry and turkeys by this new method. A variation of the same procedure is being recommended for locker plants and small packers.

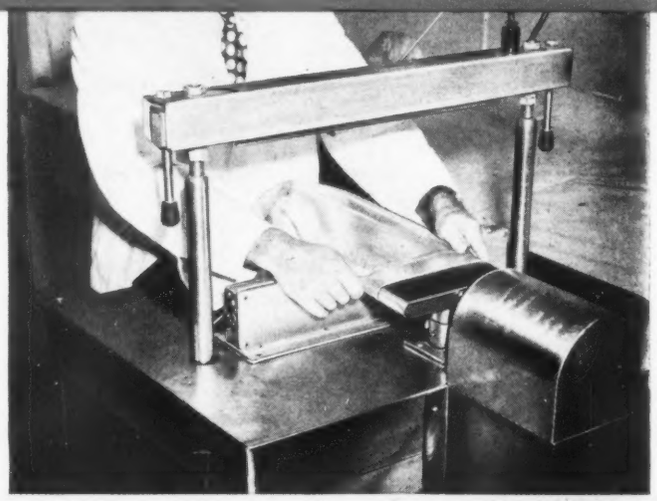
Packers using the process over specified test periods have reported no instances of freezer burn and practically no weight losses due to dehydration. Laboratory

SECOND-SKIN fit of new packaging eliminates folds and pockets that are contributing factors to dehydration and freezer burn. Transparency and shiny surface add greatly to eye appeal. Labels may be applied inside or outside package.



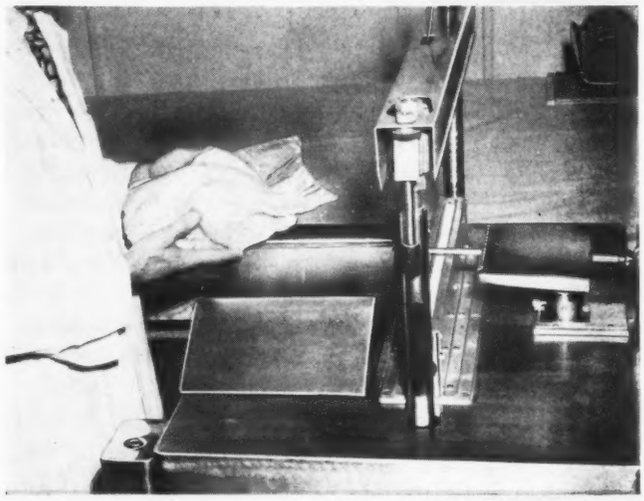


BAGGING is done by placing the bag over the stuffing horn shown in insert. Product is placed in horn by operator and pushed into bag, 12 to 15 units per minute.



VACUUMIZING of the package is achieved by placing the bagged article in a saddle with open end of the bag over the mouth of the vacuum nozzle. A 15-in. vacuum is pulled.

EXCESS OF BAG is torn off with the right hand while the operator holds the left-hand switch button down to keep the sealing bars closed down over end of the bag.



SEALED PACKAGE is now ready to go to the dipping tank or the spray tunnel for shrinking. Release of left-hand button permits top sealing bar to return to open position.

tests of finished packages stored at zero and weighed regularly over specified periods have showed inconsequential weight losses.

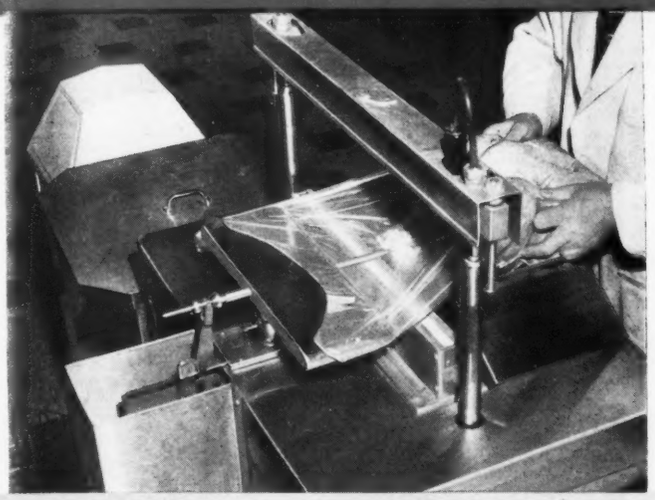
Usually average weight loss in frozen poultry packaging is estimated at $^1/_4$ oz. per lb. Elimination of this weight loss through this new package protection therefore—based on current poultry prices—means considerable money savings per bird. This is a substantial sum when related to quantity production in a large packing house which heretofore had to allow for a weight loss of at least an ounce on each 4-lb. bird at the time of packing. Exclusion of oxygen by means of the vacuumizing, sealing and film-shrinking process also means improved flavor, since deterioration of flavor is said to be caused by rancidity that develops through the interaction of oxygen with the fatty tissues. Toughness and abrasive resistance of the film have been demonstrated satisfactorily in actual commercial use.

Packaging procedure

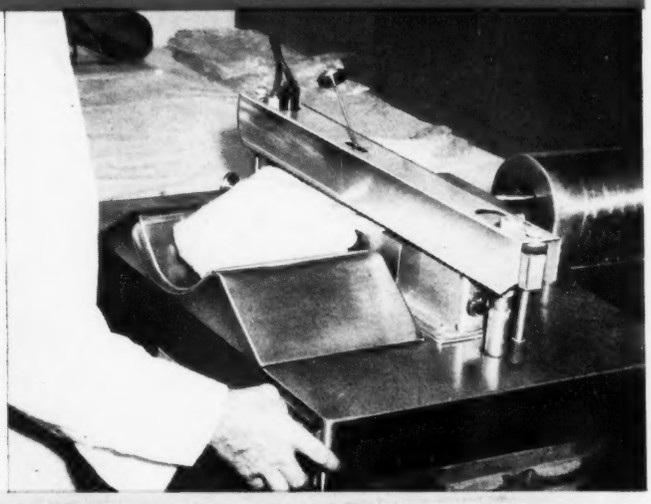
There are four steps in the packaging process.

1. *Bagging:* The bag is loosely drawn over the discharge end of a stuffing horn. The product is placed in the horn and pushed through into the bag. Operators can handle from 12 to 15 units per minute. The use of the horn keeps the inside sealing surfaces of the bag free of grease and moisture which otherwise might result in faulty seals.

procedure pictured step by step



RETRACTABLE VACUUM TUBE inside bag speeds vacuumizing by keeping bag from closing up between nozzle and product. Sides of bag are held from product by operators.



HEAT SEALING is accomplished by pressing two switch buttons at opposite sides of machine, a safety feature to keep both hands clear of descending sealer bar.

SHRINKING is done by dunking the wrapped product in and out of hot water (180 to 195 deg. F.) as quickly as possible. The tank is placed next to the vacuumizing machine.

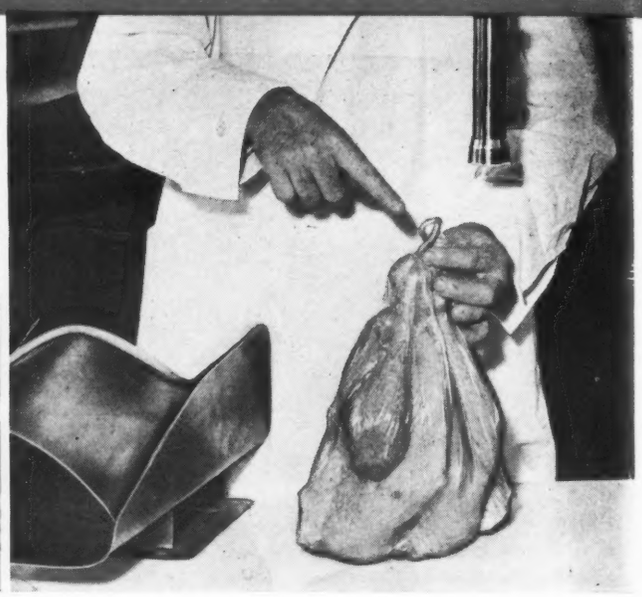
SPRAY TUNNEL may be used for shrinking packages with hot-water spray. In large packing houses, packages are automatically fed through hot-water spray tunnel.

2. *Vacuumizing:* The bagged article is placed in the saddle or trough of the sealing machine, with the open end of the bag toward the back of the machine. The operator, using both hands, drapes the mouth of the bag over the vacuum nozzle, taking care that a retractable vacuum tube is inside the mouth of the bag. This tube speeds up vacuumizing by preventing the bag from closing up between vacuum nozzle and product. The article being packed must be placed up against the guard immediately in front of the sealer bar. The operator then steps on a foot pedal to open the vacuum line which evacuates the bag so that it hugs the product. The mouth of the bag does not have to be held around the nozzle while the vacuum is being drawn. The pull of the vacuum is sufficient to hold it tightly. The operator thus may use both hands for positioning the product and holding the sides of the bag away from the product to expedite pulling the vacuum. About a 15-in. vacuum is used. Four sizes of vacuum nozzles are interchangeable, depending upon the size and type of the pack. Different shaped saddles are also available for sealing irregular, flat or rectangular objects.

3. *Heat sealing:* Sealing is accomplished by pressing two push-button switches at hand level on the front of the machine. This is a safety feature to force the operator to keep both hands clear of the descending upper heat-seal bar. When both buttons are pressed, the upper heat-seal bar moves down into contact with

Vacuum process without

VACUUM NOZZLE has been designed for hand operation. This smaller unit, designed for locker plants, is supplied with reservoir and dip tank; costs only a few hundred dollars.



TWIST SEAL is made by twirling the neck of the package before it is taken off the nozzle. The twist holds the vacuum. It may be secured by tape, string or band.

the lower stationary bar and seals the bag across the neck. The operator holds the left-hand button down to keep sealing bars closed and reaches across the lowered top sealing bar with the right hand to tear off the excess neck of the bag. Release of the left-hand button permits the top sealing bar to return to its open position. The wrapped product is then ready for shrinking.

4. *Shrinking:* The shrinking is done by dipping the wrapped product in and out of hot water (185 to 195 deg. F.) as quickly as possible. At this temperature the bag will shrink almost instantaneously to about 30% of its original size at room temperature, thereby removing all wrinkles and pockets, and hugs the article like a glove. A wire basket can be used to dunk one or several packages in a dipping tank at a time. In large packing houses, however, the packages are automatically fed through a hot-water spray tunnel.

TABLE I—SUMMARY OF PROPERTIES OF NEW CRY-O-VAC (Gauge 0.001)

Chemical	
WVT—gm. per 100 sq. in. per 24 hrs. at 100° F. & 95° RH	<0.35 gm.
WVT—gm. per 100 sq. in. per 24 hrs. at +5°F.	<0.05 gm.
Water absorption	negligible
Gas permeability for 100 sq. in. per 24 hrs.	
O_2—	0.4 cc.
N—	0.3 cc.
Taste and odor	nil
Mechanical	
Tensile strength	6,000 to 10,000 lbs. per sq. in.
Elongation at failure, %	30 to 60%
Tear strength (Elmendorf)	16 to 24 gm.
Thermal	
Heat-sealing range	240°–270° F.
Burning rate—ASTM D568–40	Self extinguishing
Resistance to cold	Flexible at −20°F.
Dimensional stability −% shrink at 180°F.	30% shrinkage

The foregoing procedure describes the semi-automatic unit capable of completing four to eight articles per minute per operator, depending on the size of the product. Each unit occupies only 2 by 4 ft. of floor space and costs about $1,500 per installation. The smaller unit for locker plants, which can be purchased for a few hundred dollars, consists only of a vacuum pump and reservoir, nozzle and shrink tank. In this case an air-tight seal is accomplished by twisting the neck of the bag and securing it with tape, string, rubber or metal band. While not so fast as the semi-automatic equipment, the locker-plant unit represents a minimum of labor and is a great deal faster than many currently used packing methods.

Trademark identity may be achieved either by placing a label inside the bag, in which case it is placed in position by the operator doing the bagging, or by cementing a label to the outside surface of the shrunk package. Ungummed labels are recommended, sealed with cement specially developed by the supplier of the new film to hold under all conditions of freezer storage and handling. Cellophane labels may also be used.

By the latter part of the year, the supplier expects to have available facilities for printing the bags by aniline process up to three and four colors, which would obviate the necessity of applied labels.

So far, installations of equipment have been limited

heat sealing

COMPLETED PACKAGE after the bag has been dipped in hot water and shrunk tightly to contour of the product. This procedure requires a minimum of labor and time.

by the producer's facilities for supplying the bags. To date, this has been sufficient to cover only the needs of the 12 units already in operation. Facilities for producing the film are being enlarged rapidly, however, and the company will make new installations as fast as its film production permits.

Sizes

Bags are made in 12 sizes ranging from 8 by 12 in. to 18 by 30 in., covering uses for whole broilers and fryers, ducks, turkeys and other fowl, retail meat cuts and 5- and 10-lb. fish cartons. Bags may also be ordered large enough to enclose a whole lamb, veal or side of beef.

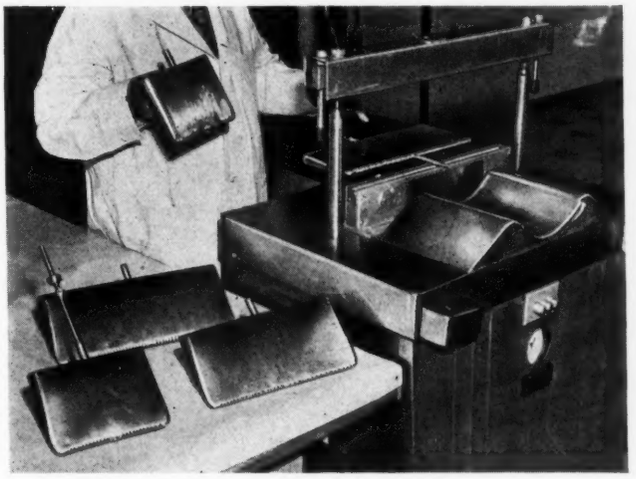
Costs

Prices of the bags are said to compare favorably with other materials used in frozen-food packaging. More important, however, are savings represented by the increased speeds that reduce labor costs because of easy handling by the new method. When these savings are added to those achieved through elimination of moisture loss and through a superior package that will withstand longer periods of storage, the originator of the process claims that the new method actually costs less than others.

First installations have been confined to the frozen-poultry industry. Eventually the same process will have many other uses, but "we are proceeding slowly," said a company spokesman, "expanding only in directions where we are sure of our ground and can offer what we know is a superior package."

The company reports promising results on packaging methods for quick-frozen fish fillets, frozen meats and meat cuts. Two procedures have been developed, the prewar method of bagging the frozen block for those packers who freeze in pans and another method of wrapping units in the Cry-O-Vac bag before freezing. In the case of the latter, the fish or meat units are first cellophane wrapped, then placed in trays that are overwrapped with the new bags, vacuumized and sealed. This will offer new convenience to retailers in handling such units and more attractive packages for the consumer.

Application of the improved method to the prepackaging of fresh meats is also being studied, although still highly experimental (*Continued on page 193*)



INTERCHANGEABLE NOZZLES are available in four sizes for various types and shapes of pack.

SHRINKAGE of bag is illustrated by these samples, one of which was dipped quickly in hot water. This shrinkage is due to the oriented structure of the film. Said to be dimensionally stable at room temperatures, it shrinks to about one-third its size on application of heat.

MP DESIGN

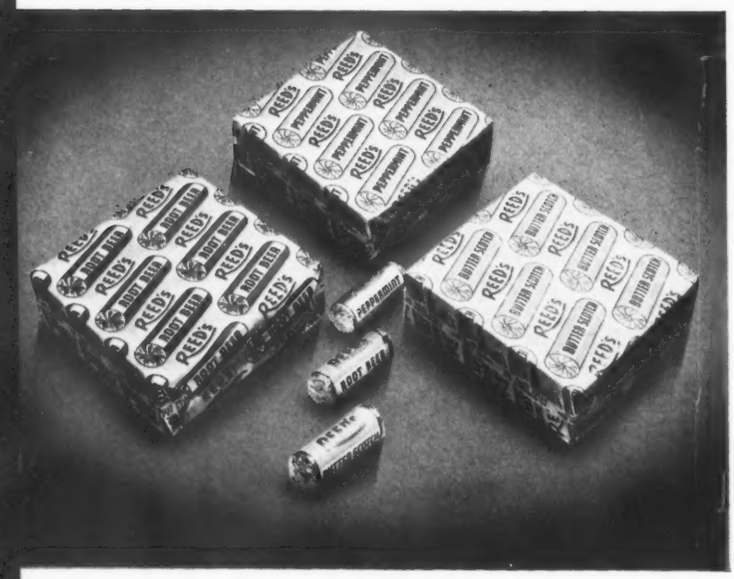
CLOTHESLINE BASKET

Important considerations leading to the design of this folding paperboard basket package for Industrial Synthetics Corp.'s plastic (polyvinyl chloride) clothesline were neatness in appearance and a concentrically wound line that would be easy to unpack and hang. The carton is made of 30-point patent-coated stock, printed in red and blue. The basket attracts point-of-sale purchases by its distinctive and novel appearance and has display value without requiring the use of additional space or the necessity for lifting the cover to see the product.

Basket handle of polyvinyl chloride patent-finish tape holds the clothesline firmly in place, making it a handy re-use container.

CREDITS: *Carton, Chopp Printing Specialties, Inc., New York. Polyvinyl chloride, Elastron, Industrial Synthetics Corp., Garwood, N. J.*

OVERWRAP TO RETAIN FLAVOR



Reed Candy Co. of Chicago has adopted a printed laminated waxed paper overwrap for its Butter Scotch roll candies to provide an extra measure of protection for freshness and flavor not usually given to this type of product.

The wrap has a finished weight of 60 lbs. and is automatically applied and heat sealed to the box on a regular heat-sealing wrapping machine.

Design of the overwrap features a replica of the individual roll package, printed in color to match the roll, and incorporates a "contents designation strip" on each end.

The new overwrap is said to be well accepted by the trade, since it provides quick and easy contents recognition and flavor identity. The firm will adopt similar packaging for other candies.

CREDIT: *Overwrap, Marathon Corp., Menasha, Wis.*

HISTORIES

NEW LABELS FOR OLIVES

Improved shelf appeal, brand and product identity are illustrated by these old and new labels for the current pack of Early California Olives, product of Pacific Olive Co.

New bottle labels are narrow and placed low on the jar to expose the product, hand placed in the bottle, to view as much as possible. Can labels show actual size of the olives by reproducing photographs of the actual fruit.

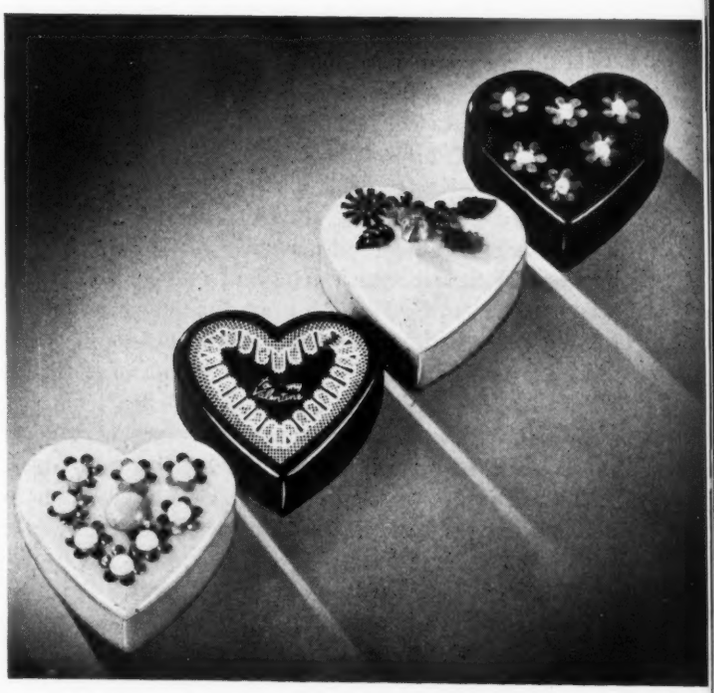
Printed in four colors, the new labels have a white background, with brand name in bold white letters against a pimento-red patch. Can labels have a green band at the base and a branch of olive leaves ties together the elements of the face design. Back of the can label carries recipes illustrated in full color. Recipe folders tell history of California's olives.

CREDIT: *Labels, Western Lithograph Co., Los Angeles.*

PLASTIC HEARTS

Elizabeth Arden's packaging for the spring season was heralded with this group of four tiny heart-shaped plastic cases delicately adorned with spangles and stones, designed for Valentine's Day gift giving. Each of the cases contains a miniature flacon of perfume. Material is urea. The design is a private mold. Cases are injection molded in two pieces—base and cover—which are held together with cellulose tape. They are delivered undecorated and the sequins and jewels are applied to the covers at the Elizabeth Arden plant in designs originated there.

At the left is a pink heart studded with blue stones and sequins. Next is a red heart decorated with a lacy white design and inscribed "to my Valentine." The third is in pink, adorned with spangles arranged in a delicate floral design. Last of the group is bright red.



THREE TYPES of test packages are displayed at New York City's Washington Market along with the conventional bushel basket. The cell-type corrugated container with individual cells for each peach afforded best protection for the product and commanded highest prices. Also used in the test were the wirebound spartan crate and flat half-bushel fibreboard box without cells.

Cell-type box scores another victory in New Jersey experiments, proving that a premium market exists for better peaches properly packaged. By JOSEPH F. HAUCK*

In studies conducted in various sections of the country in the last few years,[1] it has been found that tree-ripened peaches will bring premiums and result in increased retail sales. Supermarkets in Philadelphia handling firm-ripe peaches during the 1946 season sold 89% more peaches than stores of similar size in the same chain handling ordinary peaches. Ripe fruit is superior in flavor, appearance and quality and is preferred by consumers to the immature peaches usually offered for sale in our metropolitan centers.

Problems in shipping ripe peaches, one of our most fragile and perishable commodities, are complex. Ripe peaches can be moved advantageously from roadside stands to the consumer's kitchen by automobile with relatively small damage. They also can be trucked successfully in 16-qt. open baskets from the grower's packing house to nearby store-door, as we did in the 1946 experiment. Shipments to more distant markets, however, involving large truck loads, closed packages and warehousing are much more difficult. Damage from bruising may be very great in such shipments. Risk of loss from brown rot and general breakdown is increased, particularly if pre-cooling and refrigeration are not used. Additional risk is taken if fast delivery and fast retailing are not possible. The total risk involved in shipping ripe peaches in ordinary packages is prohibitive.

Trial packages

In 1947 the New Jersey Agricultural Experiment Station and Extension Service, in cooperation with a prominent grower in Burlington County and the Beverly Cooperative Growers Assn., decided to try three types of packages for shipping quality, tree-ripened fruit:

1. A heavy corrugated cell-type container, with individual cells for each peach. In this box, fruit was packed like eggs in an egg carton, four layers deep. Boxes containing 120 cells were used for $2^1/_4$-in. peaches and 96-cell boxes were tried for peaches $2^1/_2$ in. in size.

2. A recently developed half-bushel fibreboard package, without cells and with a special snap-on lid. This shallow, oblong box was constructed especially strong to withstand rough treatment and to prevent bulging when stacked one upon another. The snap-on lid permitted quick inspection and eliminated pasting, nailing and tying.

3. The spartan box, a wirebound, oblong crate which a number of growers suggested might be suitable for

* Associate Extension Marketing Specialist, New Jersey Agricultural Experiment Station and Extension Service, New Brunswick, N. J.

[1] See "Compartments for Peaches," MODERN PACKAGING, Feb., 1946, p. 128.

OBSERVERS CHECKED the quality of the fruit from the grower's packing house right through to the retail store. The trade liked the cell-type box, but suggested several improvements.

ripe-peach shipments. This crate is light in weight and strongly reinforced at the proper places. It can be quickly assembled and the lid fastened without the use of nails.

Two of the three containers tested have been tried in other states, but have not commonly been used for peaches in New Jersey. It was important to know how well these packages were suited to our conditions and how they would be received on the New York market.

During the period Aug. 11 through 24, 10 shipments of peaches in special containers were made. A total of 214 special packages was involved and an attempt was made to include some of each type package in each shipment. Larger shipments were planned, but sufficient quantities of quality fruit were not available at the farm during the study. Included were 132 cell-type packages, 62 flat half-bushel containers and 30 spartan boxes.

Firm-ripe peaches were selected from the grading belt and packed in special containers daily. A man was assigned to the grower's packing house to help with the special packaging and to keep records of shipments and quality of fruit. The Burlington County Agent supervised this work. Another man was stationed at the commission house to examine packages and fruit upon arrival each night and to make records of his findings. The same man often followed peaches to the retail store and inspected fruit and packages at that point. The special packs were trucked to New York along with the grower's daily shipments, with no unusual care or other special treatment.

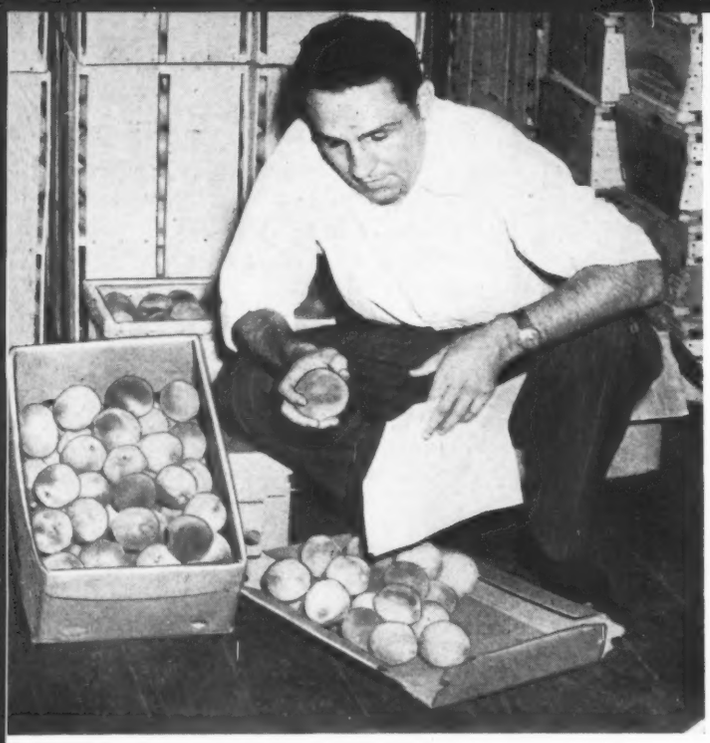
The peaches were sold by the commission house to retailers and street peddlers in New York City. Commission men in New Haven, Conn. and Paterson, N. J., also received peaches from the commission house and sold these to local retail stores.

Unfavorable weather conditions prevailed during the experiment. Humidity was excessive, rainfall was frequent and temperatures were higher than normal. Conditions were ideal for the development of brown rot and deterioration of even slightly bruised or soft fruit was rapid. It was not possible to ship uniform quality throughout the trial. Although on several days excellent quality fruit was packaged, quality in general was below standard. Some shipments were too green and hard, while others were too soft and over-ripe.

Performances of packages compared

Cell-type container. The cell-type package was found to be the most satisfactory of those tested. Bruises in this package were largely confined to the top layer and usually were caused by forcing the lid on, particularly for the $2^1/_2$-in. peaches. Some minor bruising resulted when oversized peaches were forced into the cells. The total amount of bruising was relatively small. Individual cells confined brown rot to the peaches originally infected and controlled the spread from peach to peach. In general, shipments in this package arrived in good condition when shipped in good condition and the peaches held up satisfactorily to the retail store.

Some difficulties were experienced because of the complete lack of ventilation in the cell-type carton. An accumulation of undesirable gases and a building up of temperature in individual cells hastened breakdown of riper peaches during particularly hot days. This damage was held to a minimum by the very rapid turnover and the short period of time at which peaches were held in the commission house and at retail. The



SNAP-ON LID of half-bushel bulk container was a popular feature, although box itself failed to prevent bruising and rot of ripe peaches.

lack of ventilation might become a serious problem for longer shipments during hot weather. There was some objection on the part of the trade to the unconventional package and to the unusual measure of the box. (The quantity of peaches varied from just over $^1/_2$ bushel to $^3/_5$ or $^5/_8$ of a bushel, depending upon size of peaches.)

Bulging, sagging and loss of shape were sometimes observed when the cell-type carton reached retail stores. This detracted from the over-all appearance, but did not result in damage to the fruit. A final objection to the cell-type package was voiced by several buyers when small, immature or green fruit was shipped. On these occasions, the package actually accentuated the poor quality of the fruit.

Spartan box. Firm-ripe peaches carried fairly well in the spartan box, although it did not prove to be an ideal container. The box had a good external appearance when it reached the commission house and there was little resistance to the package itself throughout the trade. Some injury to the top peaches was observed where contact with the lid was made. Fruit in the lower part of the box was sometimes considerably bruised, usually by the weight of the layers above. For this reason, the spartan box cannot be considered as entirely satisfactory for shipping firm-ripe peaches. Wherever present, brown rot was found in clusters of peaches and was not confined to individual peaches as in the cell-type container. Ventilation in the box is somewhat better than in the cell-type package, but is far from satisfactory.

Flat half-bushel box. The external appearance of the flat half-bushel box was good on arrival at the commission house and at retail stores. However, peaches shipped in this package often were severely bruised by contact with the cover and bottom. Another shortcoming of the half-bushel box was lack of ventilation. Peaches infected with brown rot were found in "nests" on a number of occasions. The package did not give the appearance or the impression of a fancy pack, even when best fruit was shipped. The snap-on lid was, however, an exceptionally good feature. It was possible to display contents of the package without detracting from the over-all appearance by tearing or cutting. Another advantage of the flat half-bushel was strong construction of the box and its ability to hold up after several handlings. Although the flat half-bushel box cannot be recommended as satisfactory for shipping ripe peaches, it is a good package and undoubtedly will find a place in the produce business for commodities of a more durable nature.

Suggested improvements

Several improvements can be suggested for making the *cell-type package* an even better container for handling firm, tree-ripened peaches. Provision for ventilation is necessary. This can be accomplished by: (1) cutting holes in the side of the packages to allow air to flow in and out; (2) cutting holes in the individual cell dividers to permit horizontal air circulation from cell to cell; (3) cutting holes in the corrugated boards dividing the layers of cells to permit vertical passage of air throughout the package. This can be done without excessively weakening the package.

Corners of the box should be reinforced or stronger board used throughout to prevent bulging and sagging. Additional space between the top of the package and the top layer of peaches would prevent bruising when the package is sealed. The snap-on lid, used in the flat half-bushel container, might be employed to very good advantage in the cell-type package. A cushion of some soft, inexpensive material for bottom and top of package would further protect the most vulnerable peaches.

It would be desirable to make a cell-type package holding an even half-bushel, rather than the odd size of $^3/_5$ or $^5/_8$ of a bushel. If the present carton holding 96 or 120 peaches is used, weight as well as number of peaches should be clearly marked on the package.

Packages with larger cells are needed to handle peaches over $2^1/_2$ in. in size. Golden Globe variety was one of the best peaches available during the experiment, but these usually were too large for the package.

There was some resistance on the part of buyers to the 120-cell carton which held the $2^1/_4$-in. peaches. It was felt by some that the $2^1/_4$-in. peach was not large enough or good-looking enough to be placed in a fancy pack.

The *flat half-bushel package* could be improved by providing for ventilation and by protecting peaches on the top and bottom by an inexpensive cushion. Some change in design might be made to make the package and the fruit it carries more attractive. Possibly wrapped fruit might look well in this box. The snap-on lid was a very good feature. It might be possible to use this package for long-distance (*Continued on page 190*)

LAMINATED BLANKET BOX

A die-cut trademark permits product visibility and boxboard gives strength to new St. Mary's package

St. Mary's new blanket package is a two-piece paperboard folding carton, all over laminated with cellulose acetate on the exterior surface. The company decided in favor of this type rather than an all-acetate box, feeling that a transparent box made in a gauge sufficiently heavy to support a full-sized blanket would be too costly and a lighter gauge would not stand up well.

Full display advantage of the acetate is utilized by featuring a die-cut lamb, the company's trademark, outlined in white on the box top and a smaller lamb die-cut in one end of the box. This die-cutting provides two windows through which the product may be seen, thereby serving to reveal the colors of the blankets both on the counter and when the blankets are stacked on the shelf. The windows also enable the company to use the same box for all types and colors of blankets. The acetate over the window prevents soiling. Over the rest of the box it gives a shiny, brilliant surface.

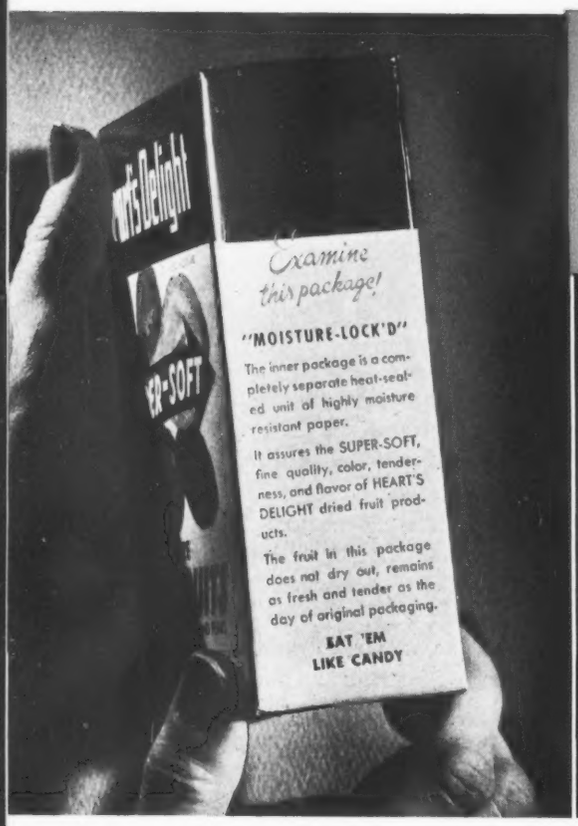
Basic color of the boxes is slate-gray—chosen because it blends with all the blanket shades. Accent colors on the box are Chinese-pink and white.

The same slate-gray color is used for a counter-display piece mounted on wood and containing swatches of all the blanket colors. The lamb trademark is realistically reproduced on this card by using an outline of the lamb cut from the fleecy white blanket material. The package-design theme is reproduced also on covers for swatch books used by sales forces to demonstrate the various grades of blankets, for covers of a consumer booklet on decorative use of color in bedrooms and for the sales clerk's profit charts. Another novel idea of the promotion is the use of a cylindrical acetate container for a group of circular cut swatches. These are given to saleswomen to illustrate the blanket colors and may be used as powder puffs. The outsert folder on this promotion piece is printed with the package motif and in the package colors.

CREDITS: *Design, Virginia Hamill, New York. Box, Paper Package Co., Indianapolis, Ind., laminated by Arvey Corp., Chicago. Display, Du-All Products, New York. Cylindrical acetate containers, National Transparent Plastics Co., Springfield, Mass. Acetate envelopes for charts, Whitehead & Hoag, Newark, N. J.*

DESIGN THEME for St. Mary's blanket box has been adapted to the company's entire collection of promotional aids.

MOISTURE


Examine this package!
"MOISTURE-LOCK'D"
The inner package is a completely separate heat-sealed unit of highly moisture resistant paper.
It assures the SUPER-SOFT, fine quality, color, tenderness, and flavor of HEART'S DELIGHT dried fruit products.
The fruit in this package does not dry out, remains as fresh and tender as the day of original packaging.
EAT 'EM LIKE CANDY

THE STORY of added protection is told by side panel of Richmond Chase package.

THREE COMPONENTS are triple-laminated glassine bag, chipboard carton, tight wrap. Job is done by waxy laminants and heat-seal coating.

When the Richmond-Chase Co., San José, Calif., first introduced its patented "Moisture-Lock'd" package for prunes in the middle of 1946,* it created an understandable stir in the dried-fruit industry. Here was a paper package which, although low in cost and conventional in appearance, could be automatically formed at high speed and hermetically sealed, moisture and water-vapor tight, so that protection could be guaranteed not merely for so-called "dried" fruit with conventional moisture content, but for pre-cooked, pasteurized prunes with a very high level of moisture.

Now, after nearly two years' experience, the package is being used not only for three sizes of pasteurized prunes, but for apricots, peaches and mixed fruits. The latter fruits are pre-cooked, but not pasteurized; so exceptional is the package protection that it has been found possible to add up to 5% moisture instead of the usual 3% and, in addition, the fruits hold their color and flavor better.

From the standpoint of sheer function—of a package specifically engineered to complement an improved process and deliver a superior product—this is one of the outstanding package developments of recent years. The story should be told for its significance not only to the dried-fruit field, but to packagers of many lines of products who are likely to find a trend in their own field toward this inexpensive, highly functional type of pack.

Because the Richmond-Chase Co. (in collaboration with a leading package supplier) was largely responsible for the development, stole a march on competitors and now claims certain rights to this package and the machinery that makes it, there are some details which it is naturally reluctant to disclose. The missing details do not detract, however, from the importance of the available information.

The package itself can be readily analyzed. It consists of a separate inner bag of triple-ply, laminated glassine, using a waxy laminant and a special heat-seal coating; a plain chipboard shell and a glue-sealed paper overwrap. Almost the whole of the protection, however, is in the bag; the secret of success is in the laminant and coating which make the glassine structure highly water-vapor resistant and capable of a durable heat seal when filled with product at a temperature of 190 deg. F. The construction of the bag is such that it has no re-entrant folds or seams. The low-cost shell and wrap serve no purpose other than to support the inner bag and provide merchandising surface. The bag is formed and sealed on specially developed high-speed machinery—details of which are as secret as the exact composition of the bag itself. The machines are shown, for the first time, in the accompanying illustrations.

In effect, this is a paper package offering advantages heretofore found only in metal and glass containers. It is the result of 10 years of research and experimentation. Its possibilities appear limitless.

The packaging history of dried fruit—prunes in par-

* See "Dried Fruit Packaging," MODERN PACKAGING, Sept., 1946, p. 123.

LOCKED IN

Richmond-Chase development marks significant advance in the protection of product with an all-paper package

ticular—has been described as "brief and unspectacular." From the days when dried prunes were shipped to retailers in bulk cartons for repackaging according to weights requested by customers, the industry had made only one real advance. The same dried prunes, with about 3% added moisture, were packed in 1- and 2-lb. "triple-sealed" cartons.

The triple sealing consisted of a glued, single-thickness paper or glassine bag, a glued fibreboard shell and an overwrap. In addition, the open ends (flaps) of the bag and shell were (and, in most instances, still are) interfolded and glued so that once opened the package defied closure in the original manner.

This "triple-sealed" package did much to stimulate retail sales of dried fruits, particularly by brand name, but it did not provide the final answer to many of the basic problems, such as convenience of preparation and weight loss on the shelves.

The advance that the new package represents may be measured by test results which show that the moisture loss of prunes in the old "triple-sealed" carton after seven months at 100 deg. F. was about 16%, whereas under the same conditions prunes in the new package had a weight shrinkage of only 2%.

This new package was actually created to hold a new product. The new product resulted from a desire to extend the use of prunes. In comparison with other processed fruits, dried fruits have shown a very limited increase in use, according to government statistics. The reasons for the failure, it was felt, was because the fruits were often unattractive in their natural dried state and often presented a tedious chore in their preparation for the table. In addition, dried prunes, because of their pits, presented a difficult problem in use.

Richmond-Chase officials, pondering the problem, decided the answer lay in approximating the familiar pasteurized date, which, after treatment, is flavorful, soft and easy to pit. Accordingly, an intensive research project was instituted which eventually resulted in the perfection of the patented "Wilbur Process." This process takes its name from Paul Wilbur, formerly research director of the Richmond-Chase Co.†

The Wilbur Process is actually an extension of normal prune processing. Whereas most prunes are packed directly after a preliminary heat treatment, pasteurized prunes are cooked under pressure and proceed along the packing line at a maintained high temperature, around 190 deg. F. Even after the carton is sealed and overwrapped, its contents remain too hot to handle readily.

Exact cooking times, pressures, temperatures and method of sustaining the high heat on the packing line are closely held details, but it may be stated that the Federal Food & Drug Administration investigated the process thoroughly before sanctioning the use of the word "pasteurized" in connection with the process.

As a result of the process, prior to packing the prunes have assumed an almost wrinkleless appearance. The added moisture gives them a moist plumpness with high flavor retention and tenderness. They are ready for the table after only 10 to 20 min. cooking, according to taste; may be eaten directly from the package as a confection and are simple to pit, thus encouraging wider use.

In short, at this stage the objectives sought in a new product had been attained. The problem then became one of maintaining the newly acquired properties after packaging and storage. Market research showed that three to six months was the average shelf life to be expected before purchase by the consumer.

Experimentation quickly showed that a new type of inner bag was the best approach—one which would be as nearly moistureproof as possible and which could be handled easily in high-speed packing machines. The solution lay in an improved material and method of making such a bag.

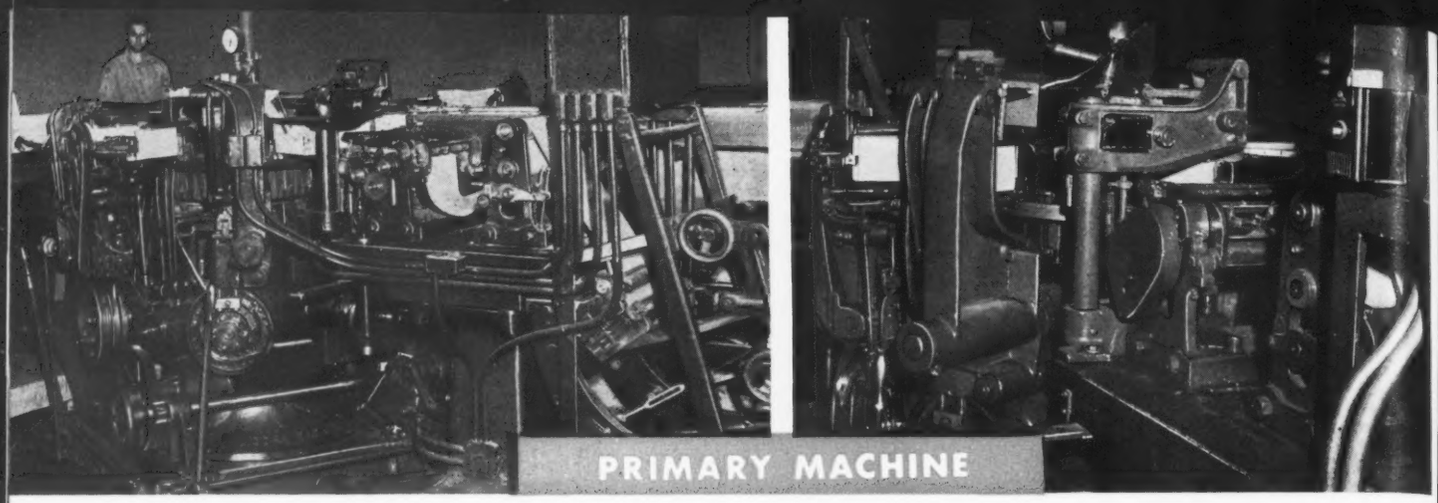
In cooperation with the packaging supplier, the triple-laminated and coated glassine was developed to the point where it met all requirements. In addition to providing an exceptionally low transfer rate for moisture and flavor, the glassine itself was tasteless and odorless and was easily and completely heat sealable on the special machinery developed for it. The package supplier also figured in the machinery development.

With the introduction of the new methods, the Richmond-Chase products are being packed at the rate of a case each minute—double the old rate.

The packing process starts with a preliminary grading and sorting. Since prunes in their natural state are very sticky, they are transported on vibrating conveyors which act to prevent jamming. Passing through preliminary processing, the fruit is again inspected and broken, and unacceptable prunes are discarded. The fruit then moves to the pressure cooker where it is precooked and the extra moisture added.

The prunes emerge from the pressure cooker piping

† Mr. Wilbur is now research director for Food Machinery Corp., San José, Calif.



BAG FORMER takes laminated glassine from roll at right, forms pouch, heat seals side and bottom, and inserts it in carton (fed in flat from left rear) ready for filling.

CLOSE-UP view of rotary mechanism in which bag is formed and inserted in open carton. Operation—first of two special machines—is completely automatic.

hot and thereafter are not touched by worker's hands, thus allowing the manufacturer to underline his claims to a "sterile" product that may be eaten from the pack.

On the floor below the pressure cooker, the first of the two special new machines, comes into play. It is a continuous machine which forms the inner pouch from a roll of the laminated glassine by heat sealing the bottom and one side. The pouches are automatically inserted in the chipboard shells, which are set up by the machine. These folding cartons are identical to those used in the older packing process. The primary machine then puts each formed carton and bag on the filler conveyor line. As the open end passes under a hopper, the package is filled with prunes.

Attendants alongside the conveyor line take the cartons, which are filled overweight, place them on a scale and remove sufficient prunes to bring the package to exact weight. These excess prunes are returned to the sterilizer to go through the process once again.

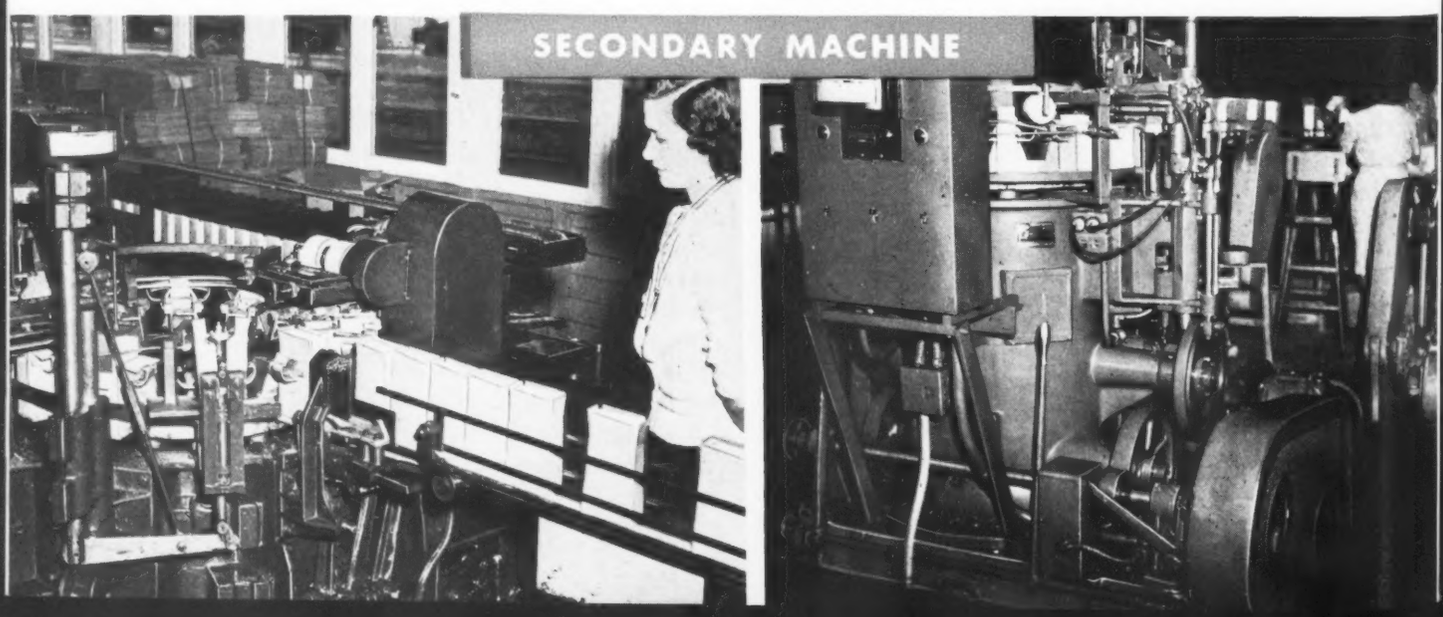
From the weighers, the cartons pass along to the second of the new machines which heat seals the open top of the inner bag, folds it under the side flaps of the shell and then glues the top flaps of the carton. Application of the tight wrapper is a conventional process.

The completed packages are then packed by hand in shipping cases, 24 to a case. These cases are "open-stacked," or "pigeon-holed," for a time before shipment to permit even cooling of the contents. It was found that if the hot cartons were closely stacked, the exterior cartons would cool normally while the contents of the interior cartons would "caramelize," or coagulate.

Despite the high sugar content of prunes and their normal susceptibility to mold, tests with the new package have convinced Richmond-Chase officials that the packaging method has defeated mold development from within the package. Texas trials proved, they say, that pasteurized prunes in the new carton remained in better condition at 100 deg. F. than at 40

CLOSING OPERATION. This second of the two special machines receives filled packages while the contents are piping hot, heat seals top of inner pouch, glues top flaps of shell and discharges packages onto conveyor.

ANOTHER VIEW of the special bag- and carton-closing machine. This, too, is a rotary operation, which is conducted automatically at high speed. The success of the bag package in retaining moisture depends on tightness of seal.



deg. F., as long as the package was unopened. This meant a possible six additional months of shelf life for prunes, which normally require refrigeration during the summer months.

Knowing that they had an improved product and a better package, the Richmond-Chase officials next sought effective means of putting their story across to the dealer and consumer. New labels were prepared, under the "Heart's Delight" brand name, which effectively stress both the process and the package.

The dominant feature of each package face is a bold arrow running from left to right which proclaims either that the contents are "pasteurized" (in the case of prunes) or "super-soft" (in the case of other dried fruits). The quick-cooking feature is stressed. The arrow carries the shopper's eye to the right side panel, which is devoted to an explanation of the package, under the heading "Examine this package!"

This panel on the newer dried-fruit cartons carries the package trade name, "Moisture-Lock'd," and explains that "The inner package is a completely separate heat-sealed unit of highly moisture-resistant paper" which "assures fine quality, color, tenderness and flavor. . . . The fruit in this package does not dry out, remains as fresh and tender as the day of original packaging. Eat 'em like candy!" The message on the prune packages is similar, except that it also plays up the Wilbur Process and trademark.

All the dried fruits are packaged uniformly in 1-lb. cartons. In the case of prunes, however, three sizes of the fruit itself—medium, large and extra large—are regularly packaged, so distinction is provided by the background color of the main panel: blue for medium, red for large and white for extra large. The prune packages have no pictorial illustration, but the other fruits (with a uniform white background) carry full-color, actual-size pictures of the product. All packages are uniform in the dark-blue band around the top carrying the "Heart's Delight" name. Back panels of the prune cartons elaborate on the advantages of pressure pre-cooking and give directions for quick cooking in the home. Back panels for the other fruits carry recipes.

Copy critics within the company have observed that the bold arrow on the face may tend to influence the reader's eye away from the package toward a possible competitive package on the shelf to the right. A move to eliminate this objection simply by cutting off the point of the arrow is under consideration.

Although the development of the special package, process and machinery represented a substantial investment, Richmond-Chase is able to offer its dried fruits in most markets at prices which are competitive with conventionally packaged fruits.

CREDITS: *Laminated glassine and development of special machinery, Shellmar Products Corp., Mt. Vernon, Ohio. Carton shells and shipping cases, Fibreboard Products, Inc., San Francisco. Labels, Muirson Label Co., Inc., San Jose, Calif. Tight-wrap machines, Stokes & Smith Co., Philadelphia, and Pneumatic Scale Corp., Ltd., N. Quincy, Mass. Case sealer, Standard-Knapp Corp., Portland, Conn.*

TIGHT WRAP is applied by conventional machine with glue seal; completed packages move immediately to shipping cases, automatically sealed.

FORERUNNER of line was prune package in foreground. Now apricots, peaches and mixed fruits, which are not pasteurized but are "super-soft" due to added moisture, use same package.

COOLING OFF. Because prunes are packaged at high heat, filled shipping cases must be stacked in this fashion for cooling before shipment.

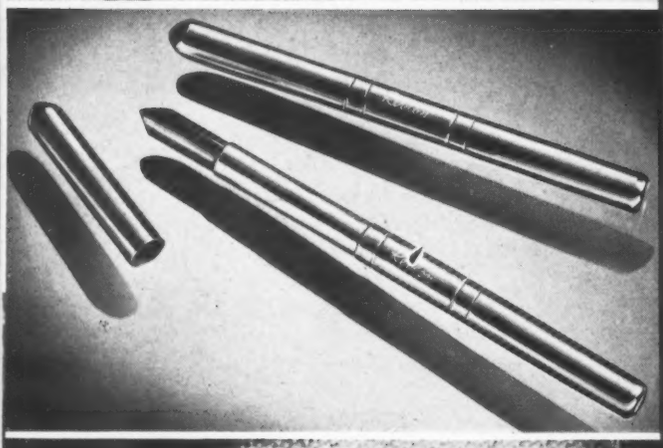
Modern Packaging

1

Glenmore's Old Thompson whiskey is re-appearing in its distinctive pre-war, private-mold bottle (right), now enhanced by a newly designed label. Feature of the new label is the identifying "Wed-In-The-Wood" barrel, which ties in directly with the company's national advertising program. Bottle, Owens-Illinois Glass Co , Toledo, Ohio. Labels, Consolidated Lithographing Corp., Brooklyn. Closure, DuPont Cel-O-Seal "Wind-O-Band."

2

Packages for three new Sharp & Shearer candy items, featuring the popular comic-strip character, "Little Lulu," have special appeal for children aside from the candy they contain. At left is the candy block package, which resembles toy blocks. In the center, square carton holds candy animals. Package at right contains cellophane-wrapped lollipops. Cartons, Container Corp. of America, Chicago. Cellophane, DuPont.



3

The "new look" in lipsticks—to match the new fashion trend—is this long, slim case recently introduced by Revlon, said to be more convenient for application. The case is of polished, gold-toned metal, simple in design and featuring only the Revlon name etched in the center, giving it a quality appearance.

4

Five-color rotogravure printing on cellophane provides an appetizing package for Rio del Mar frozen filet of sole. Brilliantly colored panels of royal blue and cherry red form the background for the full-colored reproduction of the product and the shield design. Gold ornamental effects convey a quality feeling. Side panels of the package give directions for preparing the product. Wrap, Milprint, Inc., Milwaukee.

5

Types of packages selected by The Modglin Co., Inc., for merchandising its line of combs and brushes are designed to provide maximum eye appeal, a quality atmosphere and to afford convenience and utility for both dealer and user. Small items are packaged in printed cellophane bags; larger brushes go into window cartons. Cellophane bags and small carton, Shellmar Products Corp., Mt. Vernon, Ohio. Large carton, Standard Paper Box Corp., Los Angeles.

Pageant

6 Richard Hudnut has entered the fast-growing home permanent wave market with a packaged set in a folding carton designed in gray, yellow, black and reverse white. Background is gray; center block is black, with the Richard Hudnut name in logotype used for company's other products. Inner cartons are similarly designed. Bottles carry black labels. Cartons, American Coating Mills, Elkhart, Ind. Bottles, Swindell Bros., Inc., Baltimore, Md.

7 A three-container unit of corrugated liner board for Kirby vacuum-cleaner products forms a convenient kit for the customer and a practical shipping container for the manufacturer. Attachment kit has a strap for carrying; strap may be used to hang up kit when not in use. As shipping containers, the kit and the floor-polisher box fit into master vacuum-cleaner container to hold vacuum cleaner in place. Containers, The Ohio Boxboard Co., Rittman, Ohio.

8 Campho-Phenique antiseptic is being introduced in a kitchen first-aid kit containing a regular-sized bottle of the product and 50 applicators in acetate container. Outer carton forms a two-piece display. Carton, Michigan Carton Co., Battle Creek, Mich. Bottles, Fairmount Glass Works, Inc., Indianapolis, Ind. Acetate container, Central States Paper & Bag Co., Inc., St. Louis, Mo.

9 Bliss Coffee, now a product of General Foods Corp., is marketed in a vacuum-packed can brilliantly colored in reddish brown for effective display in self-service markets. Introductory offer is being made through a premium coupon good for 15 cents on the purchase of a 1-lb. can. Cans, American Can Co., New York.

10 Packaging for entire line of Fleischmann's bakery products has been redesigned for increased eye appeal. Pattern is red and white stripes, with black oval for trade and product name. Copy concentrates on essential information for quick identity. Design, Harold S. Kimmelman, Philadelphia. Printed wraps, Kalamazoo Vegetable Parchment Co., Kalamazoo, Mich. Paperboard trays, Lebanon Paper Box Co., Lebanon, Pa.

6

7

8

CAMPHO-PHENIQUE
USE CAMPHO-PHENIQUE WITH COTTON APPLICATOR
FOR MINOR BURNS, CUTS, MOSQUITO BITES,
CHIGGERS, COLD SORES, SCRATCHES

9

10

11 The four-color printed, laminated aluminum-foil wrap used by Wyandot Packing House, Nevada, Ohio, for its "Pride of Wyandot" frozen meats consists of 0.00035 foil mounted to 32-lb. sulphite, with extra heat-sealing wax on the sulphite side. Cost of this protective package is less than the formerly used individual bags and gummed labels. Wrap, Traver Corp., Chicago.

12 Fildor metallic thread for crocheting, made by Freydberg Bros.-Strauss., is merchandised on a heavy paper core to provide a package that stands up, conveniently for retail display and handy for use by the consumer. One hundred yards of thread are automatically wound on the core. Wrap-around label and cellophane overwrap are applied by hand. Twelve spools are packaged to the box. Cellophane, DuPont.

13 The new 10-lb. bag of Sterling rock salt for snow and ice removal features Salty, the company's animated sailor, skidding on a piece of ice. Made of heavy white paper printed in two colors, the bags can be stacked into attention-getting displays. The bag also features a handy pouring spout. Design, Jim Nash, New York. Bag, Bemis Bro. Bag Co., St. Louis, Mo.

14 Designed to be sold either individually or as a set, these window-vision packages for McGregor Sportswear "Sun Sets" display both shirt and shorts. The box is hinged in the center so that, when set up for window or counter display, the products may be shown as a set or as separate items. Printing is in full color. Box, Blum Folding Paper Box Co., Brooklyn.

15 Full-color portraits of the radio comedy team, Fibber McGee and Molly, are reproduced to predominate one panel of the newly designed 1-qt. size of Johnson's Glo-Coat wax. Their bright, winning smiles form an eye-catching display when the dealer arranges the cans on the shelf, reversing every other can. Cans, American Can Co., New York.

16 Racine Universal Motor Co.'s Race 65 electric dryer is being merchandised in this metal-bottom paperboard container, 8 in. high and 7 in. in diameter, richly

Packaging Pageant

covered in wood-grain paper, making it desirable for re-use as a sewing or knitting box. The lid is covered with brown flocked paper, silk-screen printed in gold and white, and yellow braid forms a carrying handle. Design, Sellon-Collins, Milwaukee. Container, Molitor Box Co., Milwaukee. Flocked paper, Bradner-Smith & Co., Chicago.

17 All of the familiar qualities of the old package for Paas Pure Food Easter Egg Colors (which won an All-America Award in 1936) have been retained in the newly designed envelope. Up to date and more modern in appearance, the new package (right) shows the eggs in larger size and features the multi-color dyes. Design, Martin Ullman, New York. Envelopes, U. S. Envelope Co., Springfield, Mass.

18 Current packages for Q-Tips applicator swabs include three sizes, the large one illustrated in the rear being an addition to the line. All boxes carry the new design, which conveys an ethical-drug appearance. Reproduction of the product predominates the face of the package, with the trade name prominently displayed on a ribbon banner.

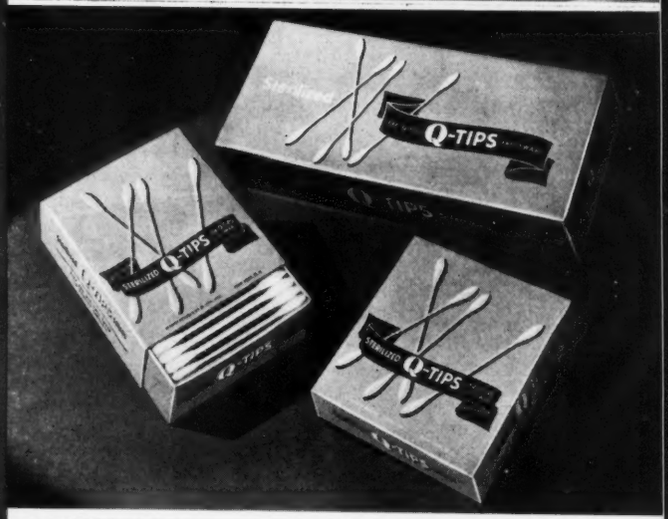
19 Ivory-colored acetate, smartly trimmed and fitted with green velvet, forms an appealing gift box for the Harvel watch. The container has appeal to the consumer for its re-use value as a jewel case or utility box upon removal of the inner velvet tray. Application of the trade name on the irregular fluted surface of the box is done by a new economical process of hot-stamping with special inks that eliminates the necessity for molded-in lettering. Container molded by The Mautner Co., Inc., New York, using Celanese Corp. Lumarith.

20 Added selling punch is given to the newly designed cartons for Oakite cleaning powder by displaying on its front panel the cheerful little figure, Okey Oakite, used in Oakite advertising. Change in size of trade-name lettering affords clearer and quicker brand identity. Space is left clear on the top panel for retailer price marking. Directions for use appear on back and side panels. Carton, Downingtown Paper Box Co., Downingtown, Pa.

16

17

18



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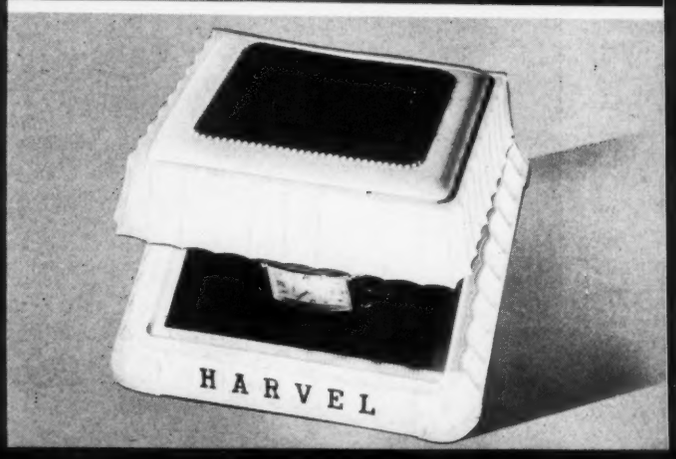


20

AUTOMATIC FOR OLIVES

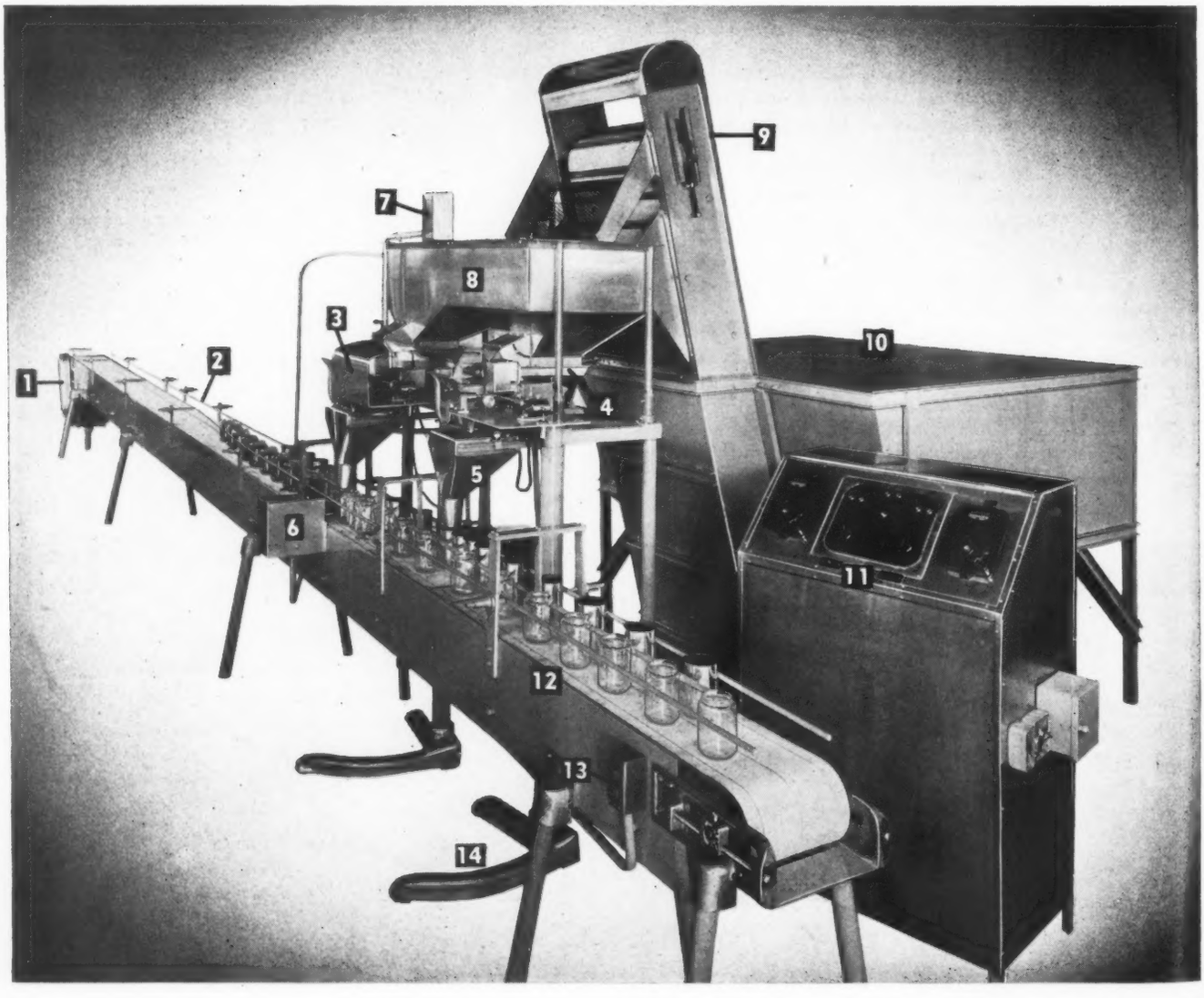
Machine that fills by weight eliminates overpack; saves more than its cost in first year of operation

If you sell by weight, pack by weight. Guided by that precept, the Grogan Olive Division of the California Leverton Corp., Los Angeles, has had developed for it an especially designed, weight-controlled, automatic filling machine.

The resultant savings in both labor costs and over-fill of olives have been so sizable that Grogan officials believe that in a single year of operation the machine has more than repaid them its initial cost of $12,000.

Olive packers, along with packers of other food products which are not of uniform size, are subject to considerable losses each season from overpacking. Although a container is sized to hold approximately the weight it is intended to carry, the practice of packing the container by volume and assuming that it contains the correct weight is a wasteful one. There is a legal obligation not to underpack; consequently, containers packed by guesswork invariably carry an over-fill—with the

MACHINE automatically conveys olives from loader hopper into twin filling heads controlled by electric scales. Over-all view shows: (1) conveyor motor, (2) converging guide rails, (3) electric scales, (4) vibratory feeder, (5) drop spouts, (6) container stops, (7) electric control for hopper level, (8) intermediate hopper, (9) incline conveyor, (10) loader hopper, (11) control panel, (12) conveyor, (13) emergency stop switch and (14) scale stand bases.



CORRECT WEIGHT reached, scale pan trips and discharges olives down chute to container.

result that there are many tons of olives actually packed but not paid for.

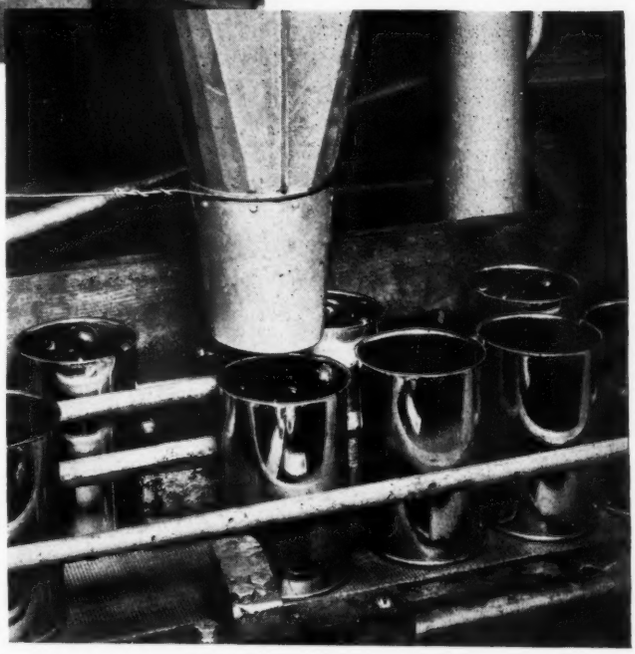
This problem has been successfully solved for Grogan by a filling machine that not only assures accurate net weight for the contents of each container, but, because it is automatic, cuts down on the man hours needed for the packing process.

The old saying that "a pint's a pound" most certainly does not apply to olives. In the research that led to the development of this machine, dozens of cans and jars of olives of various sizes, grades and trade names were picked at random from grocers' shelves and weighed. A variation of from four to nine pieces of fruit per can was found.

In the first season of use of the Grogan machine, an estimated 20 tons of olives were saved. Olives were $400 a ton at the time.

The machine was designed and produced by a Los Angeles firm which specializes in developing custom-built equipment to solve specific packaging problems. So far as is known, it is the only fully automatic, weight-controlled filling machine in use in the olive industry today.

Some olive companies have automatic sorting machines, which sort the fruit by size and fill it into containers by count, but do not actually weigh the contents. Many packers check-weigh the filled containers by hand on scales; but as a random spot check this method is not very effective and if each container is check-weighed it is an expensive and time-consuming process.



FILL OF OLIVES has just been received by can from mouth of one chute. Metal bar at left of can snaps back and releases it on synchronized schedule; another charge of olives will not be released until next empty can is in position.

BRINE TUNNEL. Filled cans in single file move through a tunnel where they are covered with brine, then travel on to closing machine.

Development of machine

The automatic machine was first introduced into the Grogan plant at the outset of the 1946–1947 packing season. Its first year in operation was primarily an experimental one, with many corrections indicated as a result of in-use experience. At the end of the season, the machine was dismantled and virtually rebuilt in the light of what its test period had revealed. It was reinstalled at the beginning of the current season and, according to Jordan Barraclough, Grogan superin-

tendent, all the bugs have been ironed out and it is now functioning satisfactorily.

Use of the equipment is currently limited at Grogan to the packaging of ripe olives. After the olives have been cured in brine, they are run through an automatic grader, which rejects those which are oversized or undersized. Then the olives pass over a sorting belt, where employees cull out the ones which are discolored or spoiled. This operation is now virtually the only part of the packaging process which requires hand work.

From the sorting belt, the olives are moved by an incline conveyor into the loader hopper and the machine comes into use. From the hopper, the olives are fed into electric scales. When the required weight has been registered, a trip device automatically empties the electric scales and plunges the olives into a pair of chutes.

Containers (either cans or jars) are concurrently moving along a conveyor under these chutes and are filled as they pass along. Each container pauses under the chute only long enough to get its fill, then moves along. A time control holds the container in position for the required fraction of a minute and releases it when it is full.

Filled to accurate weight, the containers then move along to be filled with brine, capped and labeled.

The entire operation of the equipment is electrically impelled, with a master control panel for easy regulation. The part of the packaging process in which the machine is involved calls only for an employee to feed containers into the conveyor belt and regulate the control panel.

GROGAN PACKAGES that have been filled on automatic machine. It will handle both metal cans or wide-mouth jars with equal facility.

Since the installation of the new filling equipment, Grogan has doubled its output, having achieved a capacity of 800 tons last season. The equipment now handles 67 cans a minute and it could handle more, but it has been set for its present speed to synchronize with the capping equipment, which has a 67-can maximum capacity per minute.

Advantages of automatic filling

What the new equipment has meant to Grogan is summarized in Mr. Barraclough's estimate that seven girls now do twice the packing that 12 girls formerly handled. He figures that the machine saves his company $76 per day in labor.. More important is the fact that from 1 to 5% of the fruit which was formerly squandered in over-fills is now saved.

An additional advantage, in his opinion, is that the new equipment, being automatic, turns in a uniform performance and packing is not subject to the physical or mental inconsistencies which are inevitable in the case of hand packers.

Since the machine was rebuilt, prior to the beginning of the current season, more than 10,000 cases have been packed, with no major problems having been encountered.

However, one of the major revisions found necessary was that of increasing the size of the chutes. In the original model, the chutes were so small that the olives would jam up and get stuck and it was necessary to shut down the entire equipment to free them. A second important change has been the addition of a vibrator attached to the portion of the conveyor which carries away the filled containers, so that the contents of the containers can be shaken down to a firm pack after they are filled.

The pilot machine was built of aluminum because heavier metals were not at the time obtainable. It is expected that future machines will be made of stainless steel, which is more resistant to the corrosive action of chemicals.

Grogan restricts the use of this equipment to ripe olives, although the firm also packs extensively in green olives.

After the green olives have been pitted and filled with pimento, onions, etc., they have to be hand packed so that the fillings are visible through the glass. In the case of the unpitted green olives, the tall, narrow jars which are used for them tip too easily to be subjected to automatic packing, but there is apparently no reason why the machine could not be used for green olives in a random pack in squat jars or cans.

Grogan's ripe olives are currently packaged in $8^1/_2$-oz., 9-oz. and 18-oz. sizes, in both cans and jars. They are nationally distributed under both the Grogan and the World-Over trade names.

CREDITS: *Machine designed and built by Codie-Kay Co., Inc., Los Angeles. Cans, American Can Co., New York. Jars, Glass Containers, Inc., Los Angeles. Jar caps, White Cap Co., Chicago. Labels, Western Lithograph Co., Los Angeles, and Lehmann Printing & Lithographing Co., San Francisco.*

NEW PACKAGES, at right and above, are contrasted with the old ones, at left. Stronger appearance is only one of the many advantages that have come to these products as the result of a completely re-engineered packaging program.

SIMPLIFIED PROCEDURE

Victor Gasket cuts out its box-making department and retrieves 50,000 square feet of manufacturing space; new program reduces number of package sizes from 300 to 54, streamlines the packaging operation and achieves new sales impact. By WILLIAM F. VICTOR*

Although considerable executive courage may be required to abandon an outworn packaging program and adopt an entirely new approach adequate to meet the requirements of a rapidly growing business organization, the experience of Victor Mfg. & Gasket Co. indicates that this step can pay big dividends in improved product protection and identification, in reduction in the number of package sizes and in other respects.

The Victor company was founded by my father, John H. Victor, in 1909. Nurtured by the burgeoning demands of the growing automotive industry, it is now rated as the world's largest manufacturer of gaskets. From its original location in a warehouse basement, the company has expanded until now its five plants occupy more than 16 acres of floor space. Recent growth of the business, particularly in meeting the automotive field's gasket-replacement requirements, made it necessary to provide larger facilities for more efficient stocking, packaging and shipping of the company's products. Accordingly, Plant No. 5, a five-story warehouse, was recently acquired and converted for this purpose. In

* Vice president in charge of manufacturing, Victor Mfg. & Gasket Co., Chicago.

THE OLD WAY

HAND FOLDING was required prior to filling.

GUMMED TAPE had to be applied by packager.

ATTACHING LABEL also was a hand operation.

line with this important modification of facilities, our entire packaging program was carefully re-examined.

A number of years ago we established our own box-making plant to handle the design and production of our folding cartons This development was enlarged in keeping with the rising volume of production. However, it became apparent that positive steps should be taken to bring our packaging program up to a point consistent with other phases of the company's operations.

Early in 1947, we became increasingly aware of the fact that our packaging division had not kept pace with the production efficiencies which had been developed in the packaging industry. Our box-making department was producing literally thousands of different sizes and box styles.

As an illustration, in the cork gasket line alone more than 300 sizes of cartons were being used. With the rising material and manufacturing costs, it was evident that a genuine saving could be made through a complete analysis of our packaging requirements. Accordingly, we engaged the services of a package-engineering firm to make a thorough study of our packaging procedure and to submit its detailed recommendations.

In its analysis of the Victor packaging requirements, this organization was directed to make a complete study of each division in the company's extensive line of products. So convincing was the resulting analysis, with its proposals for effecting economies and simplifying practices, that we decided to go ahead with the contemplating plan calling for the elimination of our own box-making department and the standardization of our entire packaging program.

In order to trace the full impact of the revised Victor packaging set-up, it may be appropriate to examine some of the features of the earlier procedures and then contrast them with the new methods, as typified in our Armstrong cork line of gaskets.

Before adoption of the revised program and redesigned packages, we were using great quantities of gummed tape to seal our packages. This procedure was both wasteful and time consuming and, furthermore, this type of closure did not add to the final appearance of the packages.

Product data and identification were applied by means of gummed labels, requiring an additional hand operation and necessitating the maintenance of an entire department to handle the resulting label inventory. An added disadvantage was the fact that this identification was not easily read at the point of distribution. Some indication of the scope of the Victor packaging program may be gained from the fact that we manufacture not only for the automotive field, but also for all other types of internal combustion engines (including Diesel) in the bus, truck, marine, aircraft and industrial fields.

Standardization of box design, which would be adaptable to such a diverse line of gaskets as indicated above, was but one phase of the exhaustive survey conducted. Other points considered included such factors as the

storage of packaging material, packing operations, product protection, ready identification of the product at the point of sale and the highly important item of over-all package appearance.

Packages for the Armstrong-Victor cork line of gaskets now reaching the market embody all salient features of the revised program and establish the over-all design which will be followed, with necessary modifications, in the remainder of our line. Accompanying photographs afford a significant comparison not only between the surface design of the old and new packages, but also the relative degree of labor required in handling each type on the packing tables.

After careful scrutiny of the types and sizes of gaskets included in the Armstrong-Victor cork line, we found it possible to reduce the number of package sizes from 300 to 54, including 34 sizes of boxes and 20 sizes of envelopes, thus effecting an important saving in the number of box units. Further savings were attained by adopting a special basic design of closure entirely new to the folding-box field.

Design features of this double package as indicated in the accompanying photographs, make it possible to accommodate a wide variety of product sizes and shapes. Basically, the package consists of a boxboard insert and a yellow kraft envelope or, for larger sizes, an outer folding carton. The outer container is permanently sealed at one end and has an envelope flap at the other. Packages arrive at the packing department with the flap end open.

Prior to the actual packaging operation, final identification of the part to be enclosed is imprinted by a special machine in a space provided on the open flap of the package. This operation consists of inserting the flap of the container into the machine, where the identification number and all other variable data are neatly and clearly imprinted.

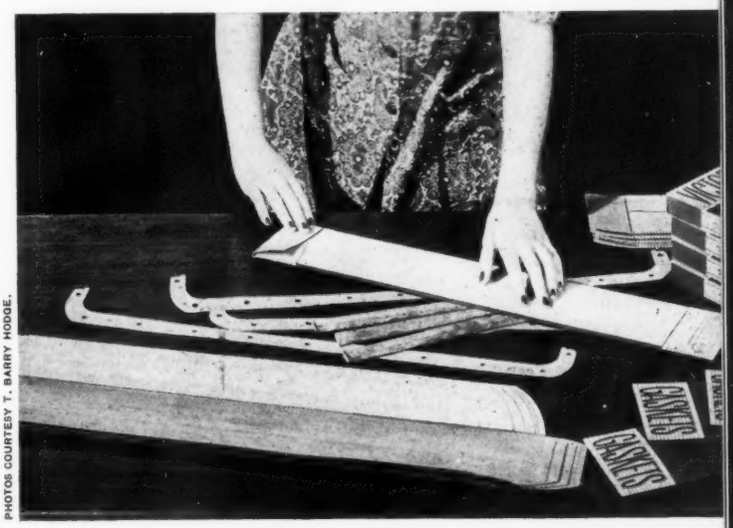
Gaskets are then placed in the boxboard insert, which is specially designed for quick and easy insertion. The flap end of the outer envelope is provided with a special type of adhesive, both on the flap and on the body of the envelope. After the insert is in the envelope, the flap is folded back and instantly sealed by finger pressure, providing a positive, tamperproof seal. Printed matter on the separate folding boxes used for other gasket assortments includes pertinent data of advertising value.

All details of the program have been dovetailed to facilitate handling from the time the empty packages reach our plant to the time they are filled and shipped. Empty packages are shipped to us from the supplier packed edgewise in properly identified corrugated containers. The method of packing protects the adhesive areas so that cartons may be readily unpacked. In some instances, it is possible to use the same outer containers for shipping the packaged gaskets.

Reduction in the number of packages, as exemplified in the cutting of the cork line from 300 to 54 sizes, standardization of material and design, and improved product protection are not (*Continued on page 197*)

INSERT comes pre-folded, ready for filling.

OUTER envelope or box eliminates the taping.



PHOTOS COURTESY T. BARRY HODGE.

LABELED FLAPS, pre-gummed, seal instantly.

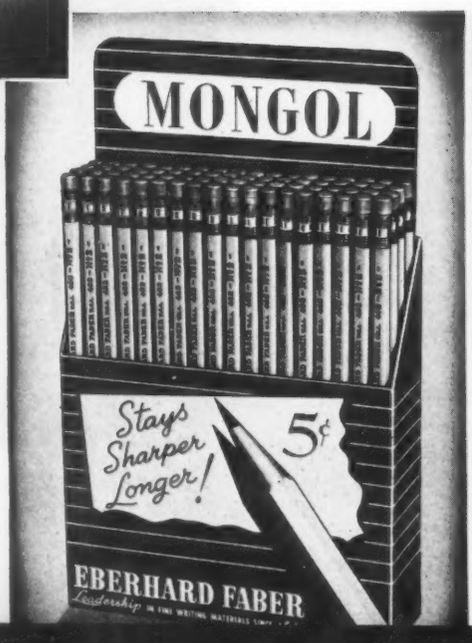
MP Display

Six-tiered paperboard counter display for Columbia sun glasses has simulated pine panel sides and full-color sea-shell design on the face. It holds 24 pairs of glasses, two in each slot, each mounted on individual price-marked, sea-shell cards. Display, Einson-Freeman Co., Long Island City, N. Y.

Fabricated acrylic lipstick color tester for Monique has black base. Tray and hood are transparent and gold printed. Design, Gilbert D. Snyder, New York. Display fabricated by Fred Siegel Co., New York, of Rohm & Haas Plexiglas.

Five hermetically-sealed glass applicators, each holding one application of tincture of iodine for emergency use, are packaged by Nips, Inc., in a folding paperboard carton that can be set up for counter display use. Display carton, International Folding Paper Box Co., Inc., North Bergen, N. J.

This shadow-box display for Canada Dry's Passport rum is molded of a latex and plastic composition in modernized French rococo design, carrying out the French theme of its Napoleon-shaped bottle. Gold corrugated facing on bottle chamber contrasts effectively with white frame. Display, National Moulded Products Corp., Brooklyn.

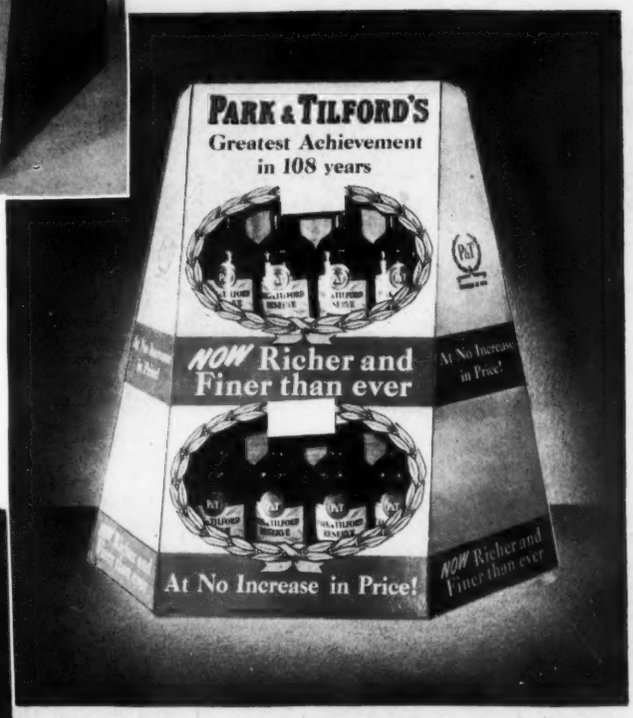


Small, upright display box for Eberhard Faber Pencil Co.'s Mongol-482 pencils measures only 5½ by 10 by 1½ in. and holds a half-gross of pencils. Strikingly colored in red, white and blue, box has a patch on front panel for displaying price and company's current advertising slogan, "Stays Sharper Longer!" Box, J & PB Myers, Inc., Brooklyn.

Gallery

Action display for Pioneer Stretchway enables the expanding feature of these belts to be exhibited. Belt fits around wood frame; pressing lever in center causes spring mechanism in back to stretch belt. Laminated paperboard backpiece is three-color printed and features large maroon arrow pointing to lever. Display, Chromatic Displays, Philadelphia.

Complete line of Aziza eye-cosmetic packages, latest of which is an acetate container for tube of mascara creme for purse use, are displayed in this counter unit. Made of hardwood, plastic coated in turquoise and printed in ivory, it holds stock in two rear drawers. Display, Vanguard Displays, New York. Acetate container, Celluplastic Corp., Newark, N. J.


PARK & TILFORD'S
Greatest Achievement in 108 years
NOW Richer and Finer than ever
At No Increase in Price!
NOW Richer and Finer than ever

Park & Tilford's new "spotlight case-wrap display" for bar and store use is made from a single shipping carton. This two-case, mass-display effect is created by cutting carton with razor blade, setting severed part on top of case to bring four bottles to upper level, shifting the bottles to front the labels, then placing die-cut, printed card around carton. Display, Zerbo, Inc., New York.

Vinyl glass-cleaner sprayers, formerly marketed in individual cartons shown at right and which dealers didn't trouble to promote, are now being put in a shipping carton that opens along perforations to form a counter unit, enabling them to be displayed along with a companion product, Clearex glass cleaner. Die-cut openings hold sprayers in place. Carton, Fibreboard Products, Inc., Los Angeles.

DESIGN DYNAMICS

Gobelin Co. candy packages illustrate a redesign plan that takes merchandising environment in the average retail outlet into account for total dynamic effect. By EGMONT ARENS*

AN ASYMMETRICAL FRAME, carrying the Gobelin logo and double-eagle trademark, is distinguishing feature of new chocolates package; specialties like nougatines have slightly different treatment. All backgrounds are white (for maximum display value); the variety designation is in bold type and each assortment uses a different bright color combination for frame and lettering. Note that the frames are different in design although similar in style, for further variety and consumer appeal.

A merchandising plan which has already proved its success can be given a new lease on life by dynamic design. Dynamics in design is achieved by raising the potential effectiveness of all the design elements. You get this by studying not only the packages themselves, but the environment in which they will be sold. *It is the impact of the package against the sales environment which creates the dynamic effect*. . . that sense of a package doing a selling job all by itself.

Over a period of many years The Gobelin Co., Inc., Cambridge, Mass., manufacturer of fine chocolates, had established a type of merchandising which put it in a class by itself in the candy field. It was during the depression following World War I that G. A. Petremont, Gobelin's president, conceived the merchandising idea which was to make history in the chocolates field. Like all great ideas, it sounds almost too simple. It was merely to print the dealer's name on the package. Result: In a rapidly falling market, Gobelin sales soared.

At first the packages carried no name but the dealer's. Then gradually it was discovered that the Gobelin trademark had selling power, so it was introduced on some of the packages—at first very inconspicuously. By 1947 the picture had changed to the point where Gobelin advertising made the trademark an important selling tool and so it was appearing on almost all of the Gobelin packages. But the dealer's name on the package still insured preferential treatment, good location and extra sales effort by the dealer.

These Gobelin packages were not bad looking. But they had developed by a process of sticking on here and taking off there until they did begin to look a trifle dated. It was at this point that Mr. Petremont decided to undertake a thoroughgoing revision of his entire line. After a series of conferences with Mr. Petremont and A. K. Benjamin, Gobelin's sales promotion manager, here is how we figured the redesign job ought to be handled:

1. The basic idea of printing the dealer's name on the package must be adhered to.

2. The name Gobelin should be conspicuous, but not too dominating.

* Industrial designer, New York.

3. A family resemblance should be apparent on all Gobelin varieties.

4. Gobelin chocolates should be easily distinguishable from competitive brands and have an appearance of "superior quality."

5. Since there are over 30 different varieties and styles of boxes, monotony of appearance must be avoided. Each variety must be distinguishable from other varieties and carry its own "invitation to buy"—the implication here being that people should be tempted to buy more than one variety.

6. The company planned to encourage the use of refrigerated display cases; hence, the packages should be designed to be conspicuous in these display cases.

It was agreed that the above summary outlined the job pretty well, so the next step was to do some research to get the background picture. We wanted to know what colors our competitors were using and what colors we might expect to encounter in the merchandise and fixtures that met the eye in the average retail outlet for these goods.

Drug stores, candy stores, hotels, cigar stands... each had a different appearance, yet we had to develop a package that would stand out in all of them.

We discovered competitors used little restraint in their use of colors. Most candy packages have all the colors of Joseph's coat and then some. It was quite evident that another multi-colored package in such an ensemble would hardly be noticed.

So we chose a background of pure white for the Gobelin line, because we discovered that an all-white package had highest visibility in every environment in which the packages were displayed. The white had other advantages. For one, it simplified the printing in of the dealer's name—an important consideration since this was one of the most important elements of Gobelin merchandising. Also, we found that when displayed in the well-lighted refrigerated cases the white shone out all over the store. And white gave the suggestion of purity and quality better than any other color.

Most important, however, was the fact that using white as a background gave us the greatest opportunity to achieve the effect of many varieties in the line, since all other colors looked well when printed on white. We could use all the colors of the rainbow to get variety identification.

Of course, gold, to represent quality, is almost a must on candy boxes. We found that we could get a very smart appearance using gold and only one additional color. This proved a great asset production wise, since it cut down printing costs.

Having made our decisions on background and ink colors, we next tackled the design problem. The design elements were: (1) the Gobelin logotype, (2) the double-eagle trademark, (3) the variety designation, (4) some decorative treatment to distinguish the Gobelin line and (5) the dealer's name.

We abandoned the symmetrical layout of the old package in order to give us greater freedom in the placing of our design motifs. This also made it possible to find an important place in which to print in the dealer's name without disturbing other elements in the design.

The imprinting of the dealer's name is done by a special printing device at the Gobelin factory as an order is made ready for shipment. Each box is overwrapped and heat sealed in cellophane.

For the decorative element on all Gobelin boxes, we devised an asymmetrical frame which could be handled in a variety of techniques and yet be always recognizable as Gobelin's. Into this we incorporated the Gobelin logotype and the double eagle, giving our package a triple trademark identity that would be hard to imitate.

The assortment or variety designation we showed in bold, decorative type, each variety in a different bright color. Since the eye immediately moves to the brightest color in any arrangement, it was evident that this treatment would give quick identity to each assortment and at the same time make a display of Gobelin candies a very colorful and attractive affair.

The black-and-white illustrations which accompany this article do not, of course, give an adequate idea of color variety. In each case the variety designation and trademark seal are in one bold color; the frame and the Gobelin name in another soft color. None of the chocolates boxes uses more than two colors. For example, the "Miniature" assortment (one of the leaders of the line) has a soft gray frame, a black-and-gold seal, gold "Gobelin" and black variety lettering. On other chocolates packages, the frame is gold, but

THE OLD

OLD PACKAGE had no mark of distinction except the gold and black double-eagle seal—which is the single element retained in the new designs. The basic idea of printing the dealer's name on the package—adopted during the depression years to boost sales in a slow market—has been adhered to in the redesigned packages. The 30 varieties of candy now have a family resemblance.

distinctive colors are chosen for the variety designation and seal: a lavender red for "Trio"; green for peppermint patties; a milk-chocolate brown for milk chocolates, etc.

A further step was to redesign the "specialty" numbers—such as nougatines, assorted jellies and peanut brittle—giving them an element of special appetite appeal. We abandoned the two-color idea for this part of the line and frankly went into four-color process work. This gave added interest to the line and made the specialties stand out conspicuously from the rest of the family. The only exception to the four-color in the specialties is the "Mellow Mints" packages, which have windows in the top to show off the product itself. Having created our own environment with the predominantly white packages, we thus achieved dynamic impact for the multi-color specialty packages.

Because of the peculiar regional preferences in the chocolates trade, a wide variety of set-up boxes is required—full telescope, with and without extended edges at top and bottom; partial telescope overlapping the base; partial telescope with shoulder base, and others.

The Gobelin Co. chooses its types carefully to meet competition in each class line and in each territory. The West, for example, prefers a flat, one-layer box for chocolates; the East wants a two-layer pack. The new basic Gobelin surface design is equally adaptable to all the types of boxes used.

The new packages were first sales tested by printing only one or two varieties and trying them out under actual selling conditions. They went so well that the entire line of Gobelin candies is now wearing the new dress. The new packages have been enthusiastically received by the trade and are reported to be "walking right off the shelves."

CREDIT: *Design, Egmont Arens, New York.*

DIVERSITY wedded to unity is demonstrated by this display of the new Gobelin family. Each package has distinctive appeal—to encourage multiple purchases—yet is quickly recognizable. Note use of 4-color printing on peanut brittle.

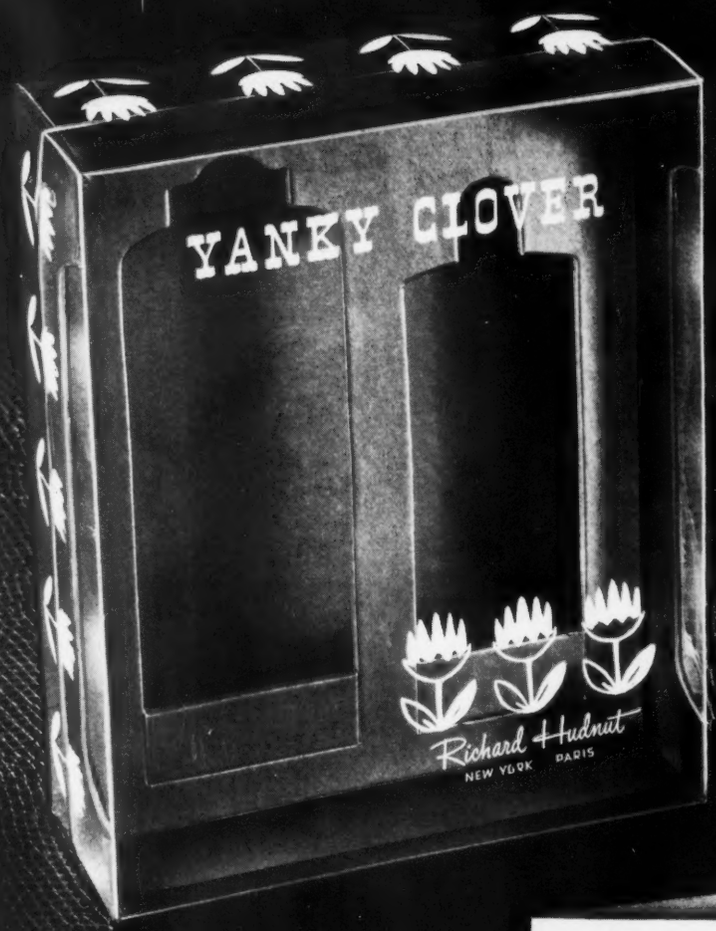
It's Burt

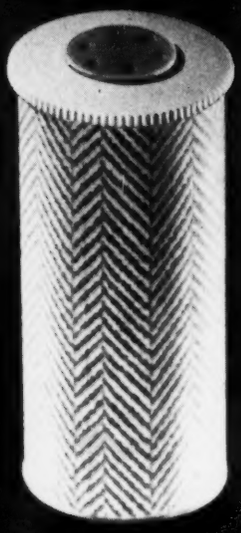
FOR VALUE

Value in construction

Value in eye-appeal

Value in materials





F. N. Burt Company Inc.

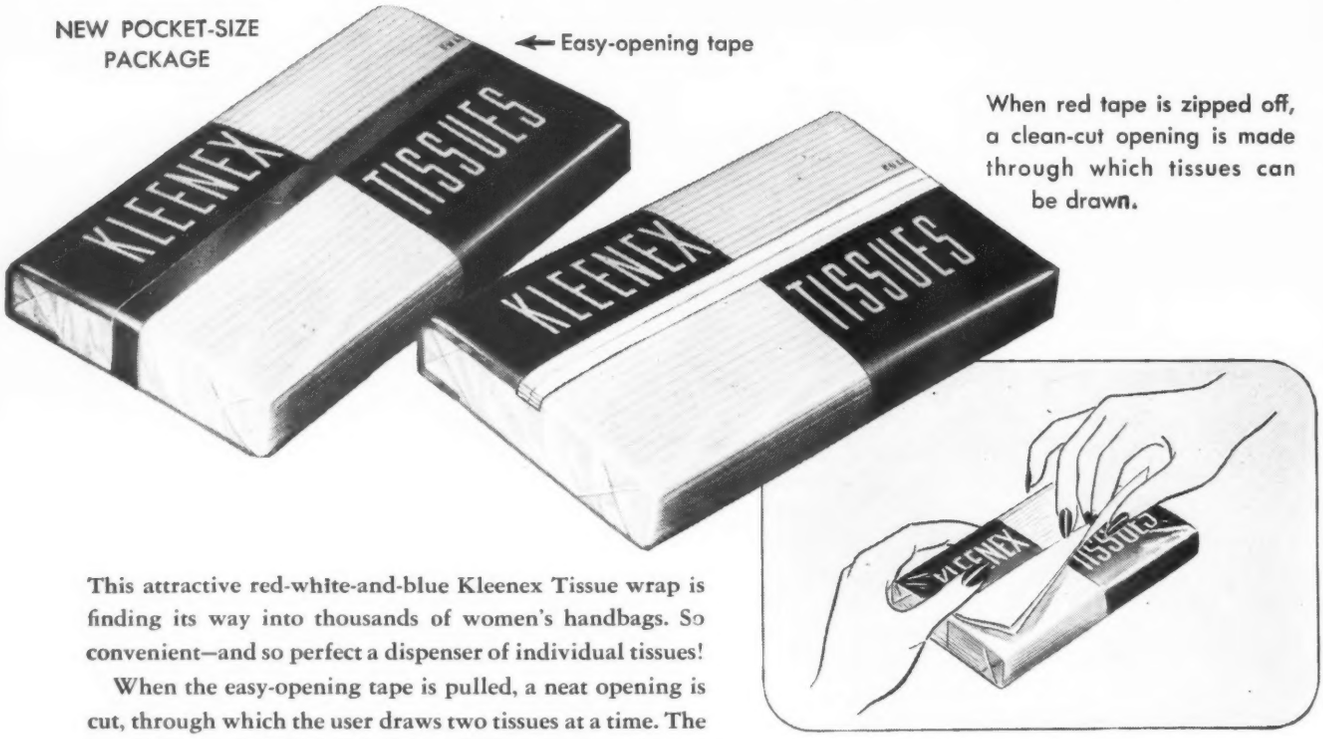
500-540 SENECA STREET, BUFFALO, N. Y.

New York City · Philadelphia · Boston · St. Louis · Atlanta · Chicago
Cleveland · Cincinnati · Los Angeles · New Orleans · Memphis
Minneapolis · Kansas City · San Francisco, California · Newark, New Jersey

CANADIAN DIVISION:

Dominion Paper Box Company Ltd., 469-483 King St. W., Toronto 2, Canada

This Easy-opening Wrap is a Dispenser Package, too...



This attractive red-white-and-blue Kleenex Tissue wrap is finding its way into thousands of women's handbags. So convenient—and so perfect a dispenser of individual tissues!

When the easy-opening tape is pulled, a neat opening is cut, through which the user draws two tissues at a time. The cellophane wrap forms a handy dispenser container for the remaining tissues.

This ingenious wrap, developed by our engineering staff, is made at high speed on our Model FA machine. The red easy-opening tape, which forms a part of the decorative scheme, is inserted in the wrapping process. Electric-eye registration locates the printed design accurately on each pack of tissues.

This is another example of how well our machines can be adapted to meet the protective and selling requirements of a given product. If you are planning to improve your package, or to wrap a new product, we suggest that you consult us as early in its development as possible, so that we may give you the full benefit of our recommendations. Get in touch with our nearest office.

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APRIL 26-30

GREASE RESISTANCE

Report on a modification of the TAPPI test method, with ratings for various packaging materials. By C. G. LAVERS*

Many properties of packaging materials must be considered when a package is to be designed for a particular product, especially a food product. These may include mechanical strength, water and water-vapor resistance, sealing properties, grease resistance, etc. For many packaging materials, several of these properties have been thoroughly reported in the technical literature. However, grease resistance has often been dealt with in only a general way. This paper will review some recent work done at the National Research Laboratories in Canada, in which the grease resistance of many of the materials commonly used in food packaging was evaluated (1).†

Materials and methods

The materials tested in this study are listed in Table I and included kraft paper, sulphite paper, cellucine, glassine, vegetable parchment, manila, "greaseproof" paper, cellophane, cellulose acetate, cellulose nitrate, ethyl cellulose, vinyl film, polyethylene, saran and Pliofilm. To give a more comprehensive picture, many of these materials were tested at several different basis weights, both waxed and unwaxed.

The method of testing grease resistance was, with slight modification, TAPPI Method T 454 M-44. By the TAPPI method, samples should be conditioned and tested at standard temperature (73 deg. F.) and 50% relative humidity. A small pile (5 gm.) of sand is placed on the sample to be tested; to this is added 1.1 ml. of turpentine containing a red dye and the time required for the colored turpentine to penetrate the sample and stain a sheet of white book paper placed beneath it is measured.

For this study samples were not brought to standard conditions, but were tested at room conditions—approximately 75 deg. F. and 35% relative humidity. Fifteen specimens of unaged samples and five of aged samples were tested. T 454 M-44 requires 30 specimens. This reduction in the number of specimens tested was believed justified because variations between samples of one type of material from different sources are often greater than the variations between different specimens of a single sample. Since samples were usually available from only a single source, it was considered that the number of specimens tested gave sufficiently accurate results for a particular sample.

In the TAPPI procedure, samples are moved at periodic intervals to see if penetration has occurred. With the large number of samples that had to be tested, this was found to be impractical, but the difficulty was overcome by using the arrangement of apparatus shown in Fig. 1.

This consisted of a low platform (18 in. high) with a glass top, which was placed on the laboratory bench and illuminated from below with a fluorescent light. Specimens to be tested were placed on the glass, on top of a sheet of thin tissue in place of the white book paper normally used. The colored turpentine penetrated the tissue instantly, so samples could be examined for penetration from underneath, making it possible to do many determinations at one time.

Since some materials are sensitive to the creasing required in making a package, samples were tested both before and after creasing. Two creases, crossing at right angles, were made in the sample by folding first in one direction and then in the opposite. Reproducible creases were produced by placing a 1-lb. weight on the loosely folded material.

Aging may also cause grease resistance to change. The effects of long-term storage under dry conditions were simulated by aging samples for one week at 140 deg. F. and approximately 6% relative humidity, conditioning for 24 hrs. at room conditions and then testing their grease resistance.

For convenience in comparing the grease resistance

* Formerly with National Research Laboratories, Ottawa; now with Research Dept., Maple Leaf Milling Co., Ltd., Toronto, Canada.
† Figures in parentheses refer to "References" appended.

of the various materials, the relative scale shown below was set up:

Time for dye to penetrate sample (seconds)	*Grease resistance score*
0–50	0
50–500	1
500–1,000	2
1,000–2,000	3
2,000–4,000	4
4,000–8,000	5
8,000–18,000	6
> 18,000	7

Tests were not carried further than 18,000 sec. (5 hrs.) because it was found that at the end of this time almost all of the turpentine had evaporated.

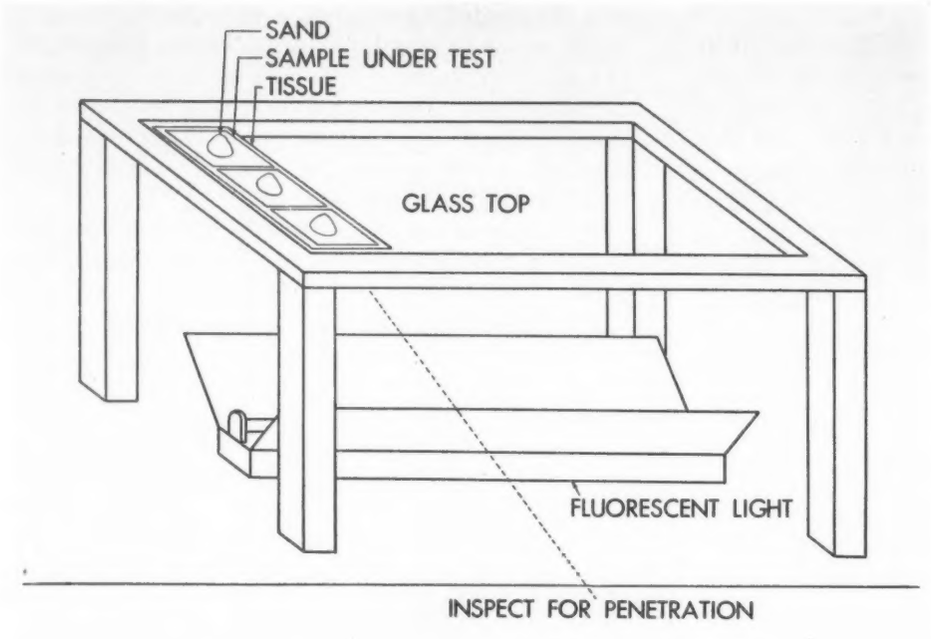
Results

Table I shows the grease-resistance scores. The discussion of these may conveniently be divided into three parts: unwaxed materials, waxed materials and the effect of aging on both waxed and unwaxed samples.

Unwaxed materials—We shall first consider untreated base sheets: i.e., materials unwaxed, not laminated and not aged or creased. Ordinary kraft and sulphite papers were of little value as grease barriers, while vegetable parchment and "greaseproof" paper had approximately equal resistance and were somewhat superior to kraft. The samples of "greaseproof" paper gave rather low results; however, the fact that more highly resistant sheets of this type can be produced was evidenced by the results shown in Table I for the commercial sheets designated as lard liners and shortening papers. The resistance of "greaseproof" papers is affected by the type of pulp used and the treatment given in the beater (2). Glassine was five to 10 times as resistant as either "greaseproof" paper or vegetable parchment. Polyethylene, in turn, was more resistant than glassine, but had a grease-resistance score of only six as compared with the score of seven recorded for cellophane, cellulose acetate, cellulose nitrate, ethyl cellulose, Pliofilm, Vinylite and saran. Creasing of many otherwise untreated samples caused considerable reduction in their grease resistance. Glassine showed a rather large decrease, especially in heavier basis weights. Cellophane and the thermoplastics tested were not noticeably affected by creasing.

Waxed materials—The application of a given weight of paraffin wax did not produce the same degree of improvement in grease resistance with all materials: i.e., the effectiveness of the coating depended on the nature of the base sheet. Kraft samples were improved but slightly by paraffin waxing and then not until a basis weight of 60 lb. per ream (500 sheets, 24 by 36 in.) with a coating of 12 lb. on one side was reached, or a basis weight of 25 lb. waxed to 35 lb. with the coating applied to both sides of the sheet. Neither paraffin-coated nor paraffin-laminated kraft samples showed any grease resistance after folding. In contrast, the kraft sample coated 40 lb. per ream with a flexible microcrystalline-wax compound had a much greater transudation time than paraffin-coated samples and retained considerable resistance after folding.

Although only one sample each of manila and cellucine were tested, it appeared that the resistance of paraffin-coated manila was similar to that of waxed kraft and cellucine was little better. Vegetable parchment, however, required less paraffin wax than did kraft paper to produce an improvement in grease resistance, but after creasing, its resistance was still no better than that of the uncoated material. Kraft and



I. APPARATUS for grease-resistance test. Penetration of kerosene through sand into the tissue samples may be observed from below through glass top.

vegetable parchment behaved similarly, in that samples of each, paraffin-coated on one side, showed greater resistance when the unwaxed side was toward the turpentine. This indicates the when paper coated on one side with paraffin is used as a grease barrier it should be applied with the unwaxed side toward the greasy surface. The results also showed that for a given weight of paraffin wax applied to vegetable parchment, greater improvement in grease resistance could be obtained by applying all the wax to one side of the paper rather than by dividing it between the two sides.

The grease resistance of glassine was greatly improved both before and after creasing by the application of only a very light coating of paraffin. Wax laminating glassine to glassine, or glassine to kraft, also raised the grease-resistance score far above that of either sheet alone. These results indicate that paraffin-wax coatings become more effective in increasing the grease resistance of paper as the density of the base stocks to which they are applied increases.

Effect of aging—Many materials showed considerably reduced grease resistance after aging at 140 deg. F., but an interesting exception to this was glassine. Many samples of this material, especially samples that were creased, had a higher grease-transmission time *after* aging. The temperature of aging was sufficiently high to cause the paraffin wax to run off many samples, with consequent lowering of grease resistance. This was not true, however, of the kraft sample coated with a flexible wax composition. The temperature was high enough to cause a part of this wax composition to soak into the sheet, but none ran off and the grease resistance was not impaired. Aging did not visibly affect the samples of vegetable parchment, "greaseproof" paper, cellophane or the thermoplastic films.

Summary

1. Kraft and sulphite paper were of little value as grease barriers. Vegetable parchment and "greaseproof" paper were somewhat superior, while glassine had a much higher grease-resistance score than either of these. Polyethylene was even more resistant than glassine, but less resistant than cellophane, cellulose acetate, cellulose nitrate, ethyl cellulose, Pliofilm, Vinylite and saran.

2. Creasing appreciably reduced the resistance of brittle materials such as glassine.

3. On kraft, a heavy paraffin-wax coating was necessary to produce a small improvement in grease resistance, while on glassine only a light coating was required to bring about considerable improvement, indicating that paraffin coatings are more effective in improving grease resistance on dense base stocks.

4. Aging at 140 deg. F. reduced the grease resistance of several materials, but in glassine was increased.

5. The resistance of cellophane and the thermoplastics was apparently unaffected by aging and creasing.

References

1. Lavers, C. G., *Can. J. Research F*, 25, 1–7 (1947).
2. Ingalls, E. G., *Paper Trade J.*, *122*, TAPPI Section 177–178 (1946).

TABLE I—THE GREASE RESISTANCE OF SOME COMMON PACKAGING MATERIALS

Material	*Grease resistance score*			
	Materials as received (average 15 determinations)		*Materials aged one week at 140° F. (average 5 determinations)*	
	Flat	*Creased*	*Flat*	*Creased*
Kraft				
50 lb.	0	0	0	0
30 lb. dry waxed to 36 lb.	0	0	0	0
45 lb. dry waxed to 55 lb.	0	0	0	0
15 lb. waxed one side to 20 lb.				
Wax up	0	0	0	0
Wax down	0	0	0	0
28 lb. white, waxed one side to 31 lb.				
Wax up	0	0	0	0
Wax down	0	0	0	0
30 lb. waxed one side to 38 lb.				
Wax up	0	0	0	0
Wax down	0	0	0	0
60 lb. blue, waxed one side to 72 lb.				
Wax up	1	0	1	0
Wax down	3	0	1	0
25 lb. waxed two sides to 35 lb.	2	0	1	0
25 lb. waxed two sides to 50 lb.	2	0	1	0
45 lb. waxed two sides to 65 lb.	3	0	1	0
80 lb. waxed two sides to 105 lb.	4	0	3	0
25 lb. coated one side with a flexible wax composition to 65 lb.				
Wax up	5	3	5	4
Wax down	4	3	5	4
25 lb. wax laminated (5 lb. wax) to 25 lb., thermoplastic coated				
Coating up	3	0	0	0
Coating down	1	0	0	0
Sulphites				
20 lb. dry waxed to 24 lb.	0	0	0	0
30 lb. dry waxed to 38 lb.	0	0	0	0
40 lb. dry waxed to 48 lb.	1	0	0	0
20 lb. unfilled, waxed two sides to 30 lb.	1	0	0	0
20 lb. filled, waxed two sides to 30 lb.	1	0	1	0
Manila				
48 lb. waxed two sides to 67 lb.	3	0	2	0
Cellucine				
20 lb. waxed two sides to 25 lb.	1	0	1	0
Vegetable parchments				
27 lb.	1	1	1	1
40 lb.	2	1	1	1
27 lb. waxed one side to 34 lb.				
Wax up	2	1	2	1
Wax down	3	1	2	1
27 lb. waxed two sides to 33 lb.	1	1	2	1
"Greaseproof" papers				
20 lb. full-bleached	1	1	1	1
25 lb. full-bleached	1	1	1	1
30 lb. full-bleached	1	1	1	1
35 lb. full-bleached	1	1		
40 lb. full-bleached	3	1	2	1
25 lb. semibleached	1	1	1	1
25 lb. full-bleached, wet strength	1	1	2	1
Lard liners				
30 lb. full-bleached, semiplastic	3	2	3	1
40 lb. full-bleached	7	7	7	5
Shortening papers				
25 lb. superplastic	4	3	7	7
35 lb. superplastic	5	4	7	7
44 lb. superplastic	7	7	7	7
Glassines				
20 lb. full-bleached	5	3	5	5
25 lb. full-bleached	4	2	3	2
30 lb. full-bleached	6	1	4	3
40 lb. full-bleached	6	1	3	1
25 lb. full-bleached, opaque	2	1	1	1
40 lb. full-bleached, opaque	3	1	1	1
25 lb. full-bleached, opaque, plasticized	2	1	2	1
30 lb. full-bleached, plasticized	5	2	5	4
25 lb. semibleached	3	1	4	3
25 lb. red	3	3	3	3
25 lb. red, plasticized	1	1	3	2
20 lb. amber	3	1	3	3
25 lb. amber	2	1	3	1
30 lb. amber	4	2	4	2
25 lb. yellow	2	2	4	1
28 lb. yellow	3	1	4	1
25 lb. chocolate	1	1	3	2
25 lb. blue	3	3	4	3
25 lb. waxed two sides to 28 lb.	7	7	7	7
55 lb. wax laminated, bleached	7	7	7	7
25 lb. wax laminated to 25 lb. kraft	7	7	7	7
Cellophanes				
300 P.T.	7	7	7	7
300 M.S.T.	7	7	7	7
300 M.S.A.T.	7	7	7	7
300 M.S.Y.T.	7	7	7	7
Thermoplastics				
Polyethylene (0.003 in.)	6	6	6	6
Saran (0.002 in.)	7	7	7	7
Vinylite (0.002 in.)	7	7	7	7
Pliofilm (0.002 in.)	7	7	7	7
Cellulose acetate (0.002 in.)	7	7	7	7
Cellulose nitrate (0.003 in.)	7	7	7	7
Ethyl cellulose (0.005 in.)	7	7	7	7

ALUMINUM FOIL

II. Structure of foil packages. Quantitative data on the efficiency of various types of closures in excluding moisture; mechanical strength of heat-sealed joints; moisture-excluding efficiencies of bags and cartons; cooling rates of cartons with and without foil liners.

By JUNIUS D. EDWARDS* and D. B. STROHM†

The structure of a package may be just as important a factor in determining its utility as the materials from which the package is constructed. Aluminum foil, as shown in the previous article of this series, has characteristics which make it valuable as a packaging material; the foil must be intelligently utilized, however, to secure its maximum advantages. The use of aluminum foil in packages will be illustrated by a variety of experimental data on the details of package construction and performance.

Package closures

The closure of foil packages is a consideration of great importance. Where the closest control of moisture or gas content is desired, there is little advantage in using impervious wrapping materials and leaving the joints unsealed in such a way as to permit ready movement of air in and out of the package. For certain applications, however, only limited control of water-vapor transfer is required and a folded joint without adhesive is satisfactory.

Housewives have found that aluminum foil makes a handy wrap for keeping foodstuffs in the home refrigerator. Fresh vegetables such as lettuce, celery, cauliflower and green beans, for example, can be wrapped in aluminum foil to advantage. Because of its "dead folding" characteristic, the foil fits the surface closely and holds this fit closely after the wrapping pressure is removed. Under these circumstances, there is a limited amount of air within the package and a limited transfer of air and moisture during its storage in the refrigerator. This is desirable because some oxygen must be available for the respiration of fresh fruits and vegetables if rapid deterioration is to be avoided. Platenius (1)[1] suggests that for best results the oxygen content of the air in the package should not fall below 3 to 5%.

Aluminum-foil wrappers have long been used for the packing of cream cheese. The package closure is a simple mechanical one, effected by folding of the foil, and is entirely adequate for this pasteurized product, which is kept under refrigeration until it reaches the customer's hands. In the home refrigerator, an opened and partially used package can be re-closed and stored satisfactorily because of the dead-folding characteristics of aluminum foil.

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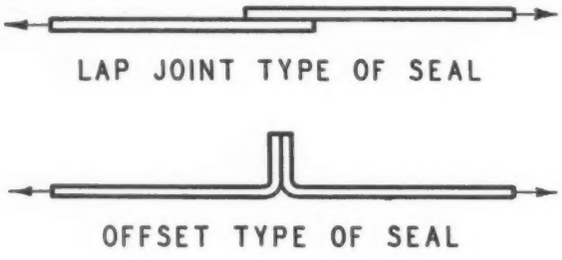
I. LAPPED-JOINT type of seal is subject to tensile load; the adhesive is subject to shear stress. The offset seal is subject to tensile load and the adhesive subject to tensile stress.



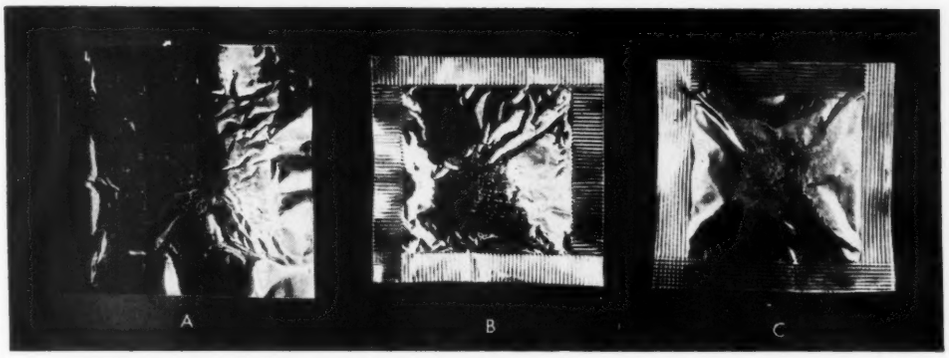
Heat-sealed joints

Where a hermetic closure is desired, aluminum foil can be employed in a number of ways. For some applications, an air-tight package can be secured by wrapping the article in bare foil and then completely coating the outside of the package with an impervious film of wax, asphaltic or resinous composition. Such a closure has been effectively applied, for example, to steel parts such as ball bearings, which must be completely protected against access of moisture during shipment and storage under conditions which might lead to severe corrosion.

For sealing foil to foil, special requirements are placed on the adhesive; metal foil is non-sorptive, so that adhesives which depend upon evaporation of water or solvent find little application. For this type of joint, adhesives which melt or become thermoplastic when heated are used.

Waxes such as paraffin or amorphous wax melt within

[1] Numbers in parentheses refer to "References" appended.



2. THREE TYPES of heat-sealed joints: (A) the plane flat seal; (B) the crossway-crimp seal; (C) the longway-crimp seal.

a limited temperature range and show good adhesion to foil. The joint must be held in place, however, until the wax has solidified and chilled to a point where it has adequate strength. Such a joint, properly made, will have high resistance to moisture penetration and will be satisfactory for many applications. It is difficult, however, to find a wax which is sufficiently sticky for this type of closure and which will not show blocking or transfer to another foil surface when the foil is wound into coils, or sheets are stacked against one another.

The demands for hermetic closures are more and more being met with thermoplastic coatings. These coatings are materials which when heated to temperatures of, say 150 to 350 deg. F., become sticky and under the influence of heat and pressure adhere firmly to the desired surface. The thermoplastic coating can be applied to the bare foil as a lacquer and dried thereon before rerolling of the foil. It is also possible with some materials to supply the thermoplastic film in sheet form and adhesively bond it to aluminum foil. There is now available a variety of transparent plastic films which are themselves thermoplastic or bear thermoplastic coatings which are suitable for lamination with aluminum foil. Of the available coating compositions, some of the polymerized vinyl resins are particularly useful. They show adequate adherence to foil, do not block, and stick or "fuse" to bare or coated foil surfaces in short contacts at convenient temperature and pressures.

Strength of heat-sealed joints

The mechanical strength of the heat-sealed joint may depend in an important way upon the structure of the joint, as well as the nature of the adhesive employed. A lap joint with a tensile loading, as indicated in Fig. 1, subjects the adhesive to shearing stresses. With such a joint, failure generally occurs through the packaging material itself and not through failure of the adhesive.

On the other hand, when the joint is an offset (Fig. 1), the loading subjects the adhesive to tensile stresses and a relatively low force may cause failure of the joint by pulling apart.

An investigation was made to determine the effects of the type of sealing jaw, the amount of pressure and the time for the application of pressure upon the adhesive strength of heat-sealed joints between lacquer-coated aluminum foils. In these tests, aluminum foil 0.001 in. in thickness, was employed and the sealed area was $^3/_4$ in. wide and 9 in. long. The sealing jaws applying heat and pressure were maintained at a temperature of 250 to 255 deg. F. Four types of jaws were employed: one had a plane, smooth surface and two had teeth whose sides met at angles of 90 deg. and 128 deg., respectively, applied crossway or at a right angle to the edge of the foil. The fourth jaw, with a 128-deg.-angle tooth, was applied parallel to the edge of the foil. Seals made with toothed-surface sealing jaws are illustrated in Fig. 2.

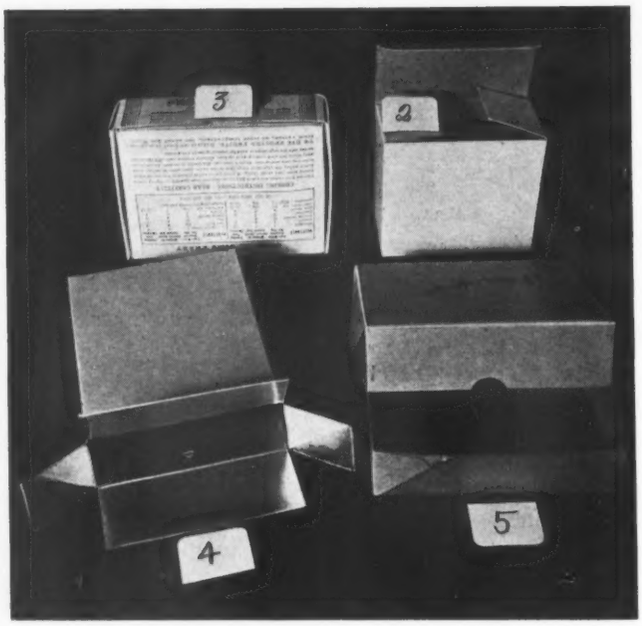
A summary of the test data on 960 seals made under various conditions of time, pressure and temperature leads to some general conclusions. Seals made with the crossway-tooth sealing jaws had an adhesive strength about three times that of seals made with plane or longway-tooth sealing jaws. The crossway-tooth seals had an adhesive strength about 25% of that of the foil itself, while the longway seal showed some advantage in strength over that effected by the plane-surface sealing jaws. Sealing times between $^1/_2$ and $1^1/_2$ sec. showed little advantage over one another in the adhesive strength developed by the seals. The effect of sealing pressure is not clearly defined, although the higher pressures used (300 to 325 lbs.) gave slightly greater strength.

There was little difference between the strengths of joints made with the 90-deg. and 128-deg. crossway-tooth jaws. Other data have shown that the design of the jaw is important. The inside edge must be properly rounded or beveled, so that perforation or tearing of the foil is avoided during the sealing operation.

Efficiency in excluding moisture

Various materials are commercially packaged in heat-sealed aluminum-foil packets or envelopes. The sealing operation is effected by automatic machinery especially developed for this application. Powdered coffee and citrus-fruit powders packaged in foil envelopes were extensively employed in the K Ration of the war period. Other candidates for this type of package are drugs, dehydrated soups, gelatin dessert powders and candies, where protection against change of moisture content is essential to the preservation of quality and shelf life of the product.

The data summarized in the preceding section showed



3. CARTONS CONSTRUCTED with and without foil lining. Test results (Table IV) show the effectiveness of the use of foil in preventing moisture loss from the contents of the carton.

that the mechanical strength of joints made with the crossway crimp is substantially higher than the strength of joints made with the longway crimp or the flat seal. Where, however, mechanical strength is not a controlling factor and gas tightness is all important, the seal made with the longway crimp has some advantages. In making a crimped seal, it is obvious that the foil or foil laminate must be stretched and formed to the contour of the teeth of the sealing jaws. This stretching of the material may under some conditions interfere with the integrity of the seal. For example, the slightest crack in the seal would tend to extend at right angles

TABLE I—MOISTURE LOSS FROM HEAT-SEALED PACKETS

(Packets filled with wood sawdust containing 70% [by weight] moisture; packets stored in desiccators over anhydrous calcium chloride at room temperature, 76–80° F.)

Description of packet made with aluminum foil (0.001 in.) laminated on one side	*Water-vapor loss in gm. after 12 weeks' storage*		
	Sealed with crossway crimp	*Sealed with longway crimp*	*Sealed with flat seal*
Aluminum foil laminated to vinyl polymer sheeting	0.002	0.000	0.001
Aluminum foil laminated to rubber hydrochloride sheeting	0.010	0.000	0.001
Aluminum foil laminated to moistureproof cellophane sheeting	0.812	0.438	0.604
Aluminum foil coated with heat-sealing lacquer	0.050	0.000	0.002

NOTE: Packets 3 by 3 in.; sealed area, 3/8 in. wide. Time of seal, 1 sec.; temperature of platen, 275 deg. F. Seals made with plastic surface to plastic or coating to coating.

TABLE II—MOISTURE LOSS FROM HEAT-SEALED PACKETS

(Packets filled with wood sawdust containing 65% moisture. Stored 90 days in cabinet at 100° F. and 20% R. H.)

Description of aluminum-foil packet sealed with crossway crimp	*Water-vapor loss—gm. after 90 days' storage*
Aluminum foil (0.001 in.) laminated to rubber hydrochloride sheeting	0.0011*
Aluminum foil (0.001 in.) coated with heat-sealing lacquer and laminated to acetate sheeting outside	0.0166†

NOTE: Packets, 3 by 3 in.
* Seal made with plastic surface to plastic.
† Seal made between coated surfaces.

TABLE III—WATER-VAPOR TRANSMISSION THROUGH FLAT LAPPED JOINTS

Description of flat lapped joint (1/2 in.)	*WVT (gm. H_2O per ft. of seam in 4 weeks) 100° F.—100% R. H.*	*WVT (gm. H_2O per ft. of seam in 8 weeks) 100° F.—100% R. H.*
1. Aluminum foil laminated with rubber hydrochloride; plastic-to-plastic surfaces heat sealed in joint	0.000	0.000
2. Same as No. 1, except foil-to-plastic surfaces sealed with adhesive in joint	0.002	0.006
3. Aluminum foil, lacquer coated; foil-to-coated-foil surfaces sealed with adhesive in joint	0.000	0.001
4. Same as No. 3, except coated foil to coated foil sealed with adhesive in joint	0.000	0.001
5. Aluminum foil laminated with moistureproof cellophane; foil-to-cellophane surfaces sealed with adhesive in joint	0.000	0.000
6. Same as No. 5, except cellophane-to-cellophane surfaces heat sealed in joint	0.029	0.066
7. Aluminum foil laminated with 35lb paper; paper-to-paper surfaces sealed with adhesive in joint	2.78	...
8. Aluminum foil laminated with 35lb paper; foil-to-paper surfaces sealed with adhesive in joint	0.174	...
9. Aluminum foil surfaces sealed with adhesive in joint	0.000	...

NOTE: Aluminum foil used in all tests was 0.001 in. in thickness; adhesive was synthetic-resin composition.

to the direction of stretch. Thus, in a seal made with the crossway crimp, a crack would tend to lead from the inside of the package to the edge of the seal, whereas with the longway crimp such a crack should run parallel with the edge of the packet and hence not interfere with the gas tightness of the seal. The tests shown in Table I seem to bear this out; the packets sealed with a longway crimp (with one exception) were practically perfect, whereas there was a very slight leakage with the crossway crimp. The aluminum foil-cellophane

TABLE IV—MOISTURE LOSS FROM CARTONS; EFFECT OF CLOSURE AND FOIL LINING
(Cartons packed with cellulose sponge, wetted with water containing mold inhibitor. Stored for 2 weeks at 100° F. and 20% relative humidity)

Description of closure	*Average moisture loss—gm. per 24 hrs.*			
	Carton No. 2, waxed paperboard	*Carton No. 4, paperboard with laminated foil lining*	*Carton No. 3, waxed paperboard*	*Carton No. 5, paperboard with laminated foil lining*
Normal closure—friction fit	12.7*	0.88	6.6**	1.2
Cellulose-acetate-butyrate overwrap—heat sealed	6.0†	0.99	3.6	1.2
Waxed paper overwrap—heat sealed	4.5†	0.91	2.9	0.89
Aluminum foil (0.0005 in.) overwrap—heat sealed	0.14	0.02	0.16	0.09

* Total storage period of 48 hrs.
† Total storage period of 96 hrs.
** Total storage period of 216 hrs.
DESCRIPTION OF CARTONS—No. 2: one-piece carton, 3½ by 4 by 2 in.; foldover flaps at both ends; 28 cu. in. capacity. No. 4: one-piece carton, 5⅛ by 4 by 1⅝ in.; foldover flaps at both ends; 33 cu. in. capacity. Spot of adhesive employed to hold end flaps in place on cartons #2 and #4. No. 3: two-piece telescope-type carton, 5⅛ by 4 by 1½ in.; 31 cu. in. capacity. No. 5: two-piece telescope-type carton, 5¼ by 4 by 1½ in.; 31 cu. in. capacity. Each recorded value is average for three test cartons.

laminate did not have good sealing characteristics.

Other similar tests demonstrate the efficiency of these sealed packets in both holding and excluding moisture. One such test, in which the packets filled with moist sawdust were stored at high temperature and low humidity, is presented in Table II.

In still another test, 12 envelopes similar to the second item in Table II were each packed with 10 gm. of anhydrous calcium chloride contained in a lens-paper package and then heat sealed. The packets tested were inspected before filling and found free from pinholes; any leakage, therefore, would be through the seal. These packages were stored in a cabinet at 100 deg. F. and 90% relative humidity. Upon examination after nine months' storage, the packages showed no deterioration and there was no increase in package weight.

Resistance of lapped joints

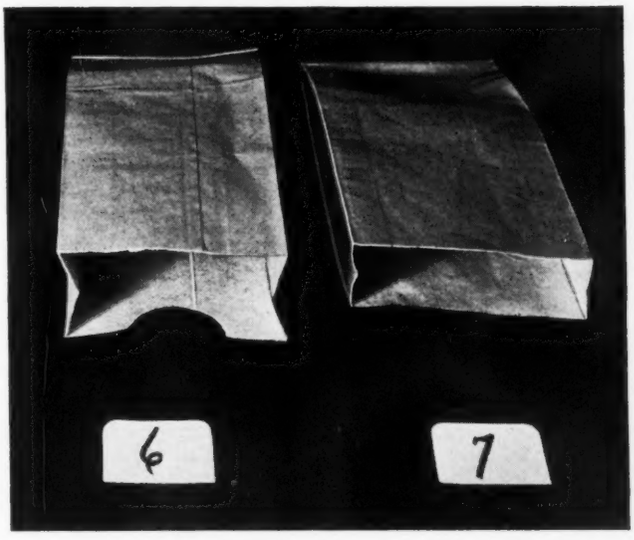
The quantitative estimate of moisture transfer through joints can be made in several ways. The data reported in Table III were secured by sealing a circle of the foil, with a flat lap joint in the center, to a glass test dish containing a moisture absorbent, as in the usual permeability measurement. These test pieces were made from 0.001-in. foil, free from pinholes, so that any moisture penetration would be through the 3½-in. length of lapped joint at the diameter of the test piece.

The data in Table III present a quantitative comparison of the transmission of moisture through flat lapped joints made in several ways. For these tests, the wrapping material was aluminum foil—bare, lacquer-coated and laminated to plastic films and to paper. The joint (No. 7 of Table III) made in such a way that two thicknesses of paper lay within the lap showed an appreciable moisture transfer through the half-inch lapped joint. Even with one layer of paper within the lap, the moisture penetration was appreciable. This is possible, of course, because of the high permeability of the paper to moisture. The transmission of moisture through a lapped joint should be negligible where bare or lacquer-coated foil is firmly sealed with a moistureproof adhesive.

The efficiency of various closures was further investigated by tests on cartons and bags, fabricated in various ways and sealed by different methods. The results are reported in Tables IV and V. The data in Table IV show that with two different types of cartons, the over-all efficiency against moisture loss in a warm and relatively dry atmosphere was greatly improved by the foil lining. Both the acetate and the waxed-paper overwraps decreased the moisture loss from the carton, but the maximum effect was secured with the heat-sealed aluminum-foil overwrap. The test condition, namely, 100 deg. F. with 20% relative humidity, is a very severe one and is in effect an accelerated test. The data are significant, however, as showing the relative performance of the two types of cartons, with and without foil lining and with four different closures. The test cartons are shown in Fig. 3 and the test bags in Fig. 4.

Similar data for folded bags are presented in Table V. The significant finding in these tests is the relatively good efficiency of the simple (*Continued on page 188*)

.4 ALUMINUM FOIL-LINED BAGS tested to determine efficiency of closure method (Table V).



Questions and Answers

This consultation service on packaging subjects is at your command. Simply address your questions to Technical Editor, Modern Packaging, 122 East 42nd St., New York 17, N. Y. Your name or other identification will not appear with any published answer.

Minimum specs for 1-lb. rice carton

QUESTION: We are packaging rice in 1-lb. cartons of 20-point white patent-coated new board, at speeds up to 80 per min. on fully automatic machines. What would you recommend as the minimum specifications for these cartons with respect to rigidity and resistance to compression?

ANSWER: The question of the minimum specifications for values to be established for this folding carton board in rigidity and compression is too specific to be answered without having many more facts.

These values should be set by the user after trying various kinds of boards and correlating their behavior on the packaging line and in service with various laboratory test values.

The board finish, the degree of calendering and the moisture content will all affect the test values. The requirement of the handling machines and the merchandising of the product will determine the levels of the various test values.

A small amount of work by the user is the only sure way these values can be found, unless this information can be obtained from another rice packer or from some mill that is making board for this end use.

Protective packaging for barley

QUESTION: We are packers of pearl barley in India. We use tin containers, the lids of which are closed by double seaming, but we have, in this trade, encountered great damage to the contents from insects which eat away the pearl barley, as a consequence of which the entire material becomes one black mass after a month or two of our selling the tins. We should be much obliged for advice which will help us in keeping this product protected from deteriorating for a long time.

ANSWER: From your question, it would appear that the metal package you are using is a so-called hermetic type—that is, with soldered side seams, compounded and seamed-on ends and capable of holding liquids, or which could be used for processing.

If you are using a metal package of this type, then the infestation which you notice must come as a result of packing pearl barley which contains live insects, or their eggs. Obviously, if you are using a container which has even the smallest mechanical opening either in its seams or closures, some of the smaller insects can find their way in from the outside during the period in which the container is stored.

However it may be that the kind of deterioration you describe is not the result of insect infestation, but is a result of packing the barley at too high a moisture content. If the barley, carrying an excessive amount of moisture, is put into a hermetic container and then placed in tropical storage, the mold spores, enzymes, etc., will become activated and cause deterioration of the type you describe. One of the results of such deterioration will be black staining as a result of attack on the iron of the container.

It is suggested that you first be sure your containers are mechanically tight; secondly, that your product be fumigated before packaging and, thirdly, that moisture content of the product be low. When these conditions are observed, you should have no further problem on product deterioration.

Hot-melt dipping of cheese

QUESTION: In this country (South Africa), as well as in Holland, cheese is dipped in paraffin wax or a similar substance. We are wondering whether any progress has been made in the United States regarding the dipping of cheese in materials other than paraffin wax. It would be very much appreciated if you could give us any up-to-date information, or put us in touch with firms who might be producing the article which we require.

ANSWER: Paraffin wax is still the basis of dip-coating formulations for cheese and similar products in the United States.

However, paraffin wax is modified by the addition of many materials, such as synthetic resins, to produce a film that is tougher and more protective than it is possible to make from paraffin alone.

Some cheese packages have been made using tubes of extruded cellulosic or plastic materials, but these are not particularly suited for use with irregular or odd-shaped objects. Such films are used as a strong and tough skin for cheese which can be extruded into them and, subsequently, the whole package is overwrapped or, in some instances, dipped.

It is suggested that you write to the various companies which make hot-melt coatings to obtain specific information concerning the various kinds of dipping compounds that are available.

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If you want to learn more about this versatile material, the Kodapak Demonstration Laboratory in Rochester is available to demonstrate fabrication possibilities and practical end uses. Write for an appointment.

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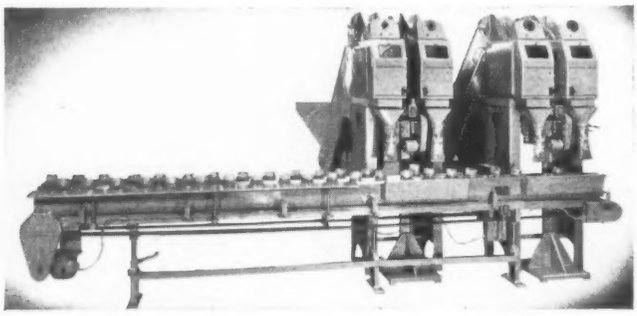
Equipment and Materials

VIBRATORY WEIGHER AND FILLER

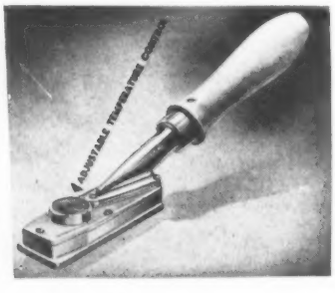
Triangle Package Machinery Co., Chicago, Ill., announces an improved Elec-Tri-Pak high-speed weighing and filling machine which pre-conditions such products as potato chips



so that they will stream through specially constructed shaking spouts without becoming damaged or broken as they are filled into bags. It is constructed with rear-feed, waist-high hoppers equipped with conveyor belts on a 45-deg. angle slope from the floor feeding into vibratory trays. The belts are supplied with fingers that gently draw the material from the hopper and transport it upwards to trays which dispense this material into "weigh-by" buckets by means of a two-speed tray. By this method, approximately 80% of the discharged load is rapidly fed into the bucket and the remaining 20% at a reduced rate of speed, to assure accuracy. The material in the bucket is then discharged into specially designed chutes which feed into the discharge spout upon which the bag is being automatically held. A shaker mechanism on the spout insure sall material being received into the bag. The bag is then released and guided to the conveyor illustrated and then on the next station, where the bags are top sealed. Only one operator is required because the unit is so arranged that when one bag is placed on the spout, the next bag on the second spout is about ready for release.

HEAT SEALER FOR CELLULOSE ACETATE

An improved heat sealer which, it is stated, will successfully heat seal cellulose acetate, as well as all other heat-sealable materials, has been announced by the Wells Mfg. Co., San Francisco. This "Wells Thermosealer," the makers claim, features a more accurate and adjustable temperature control than has heretofore been used. Tests have proved, it is further stated, the unit will heat seal acetate without the use of Teflon, usually employed to keep such materials as acetate from sticking to the surface of the sealer. Made chiefly of aluminum, it is light in weight and when plugged into a 110-volt outlet may be used for hand sealing regular and irregular shaped packages, or may be attached to a packaging machine.



PALMER MACHINES TO GENERAL MILLS

General Mills, Inc., Minneapolis, announces that it has acquired exclusive rights for the manufacture and sale of certain packaging machinery developed by Frank D. Palmer, Inc., Chicago. The first of the Palmer developments to be marketed by the Mechanical Division of General Mills is a high-speed ice-cream-carton set-up machine (MODERN PACKAGING, Aug., 1947, p. 152). This will be followed closely by a carton-closing machine and an ice-cream filler, completing the automatic ice-cream-packaging line for setting up, filling and closing the U. S. Standard No. 2 linerless lock-type ice-cream carton. According to G. C. Becker, General Mills' divisional vice president in charge of packaging machinery, these are only the first of a number of Palmer developments that his firm will manufacture and market nationally.

AUTOMATIC SELF-INKING RUBBER STAMP

M. Mann & Co., New York, is offering an automatic self-inking rubber stamp which they claim will work on any surface, round or flat, and on such materials as wood, cloth, paper, etc. With a single horizontal motion, the Algene

marker applies such information and identification as trademarks and shipping-lot numbers. After each impression, the stamping cylinder automatically returns to its original position. The automatic ink rollers built into the stamp eliminate the use of an ink pad, inasmuch as a few drops on each roller, the company claims, are sufficient ink for thousands of impressions without re-inking. Photograph shows the device with cylinders grooved to receive interchangeable type. A permanent die may also be used.

PAPER PACKAGING MACHINE

Lynch Corp., Marion, Ind., is offering its Morpac paper-packaging machine, a high speed unit for the wrapping of paper sheets in sizes from $7\frac{1}{2}$ by 10 in. to 9 by 15 in., in packages up to 5 in. thick. With two operators, one feeding and the other taking away the wrapped packages, the machine is said to have a speed up to 1,000 packages per hr. It glue

PACKAGE *with* PETERS —AND PROFIT

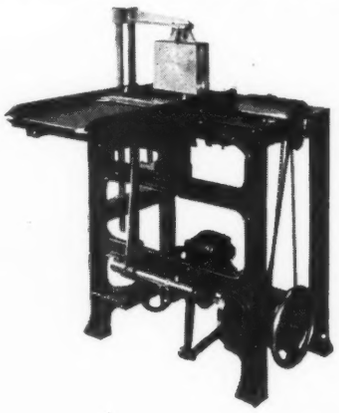
Here are two machines that help you set up and close attractive packages inexpensively.

The PETERS JUNIOR CARTON FORMING AND LINING MACHINE, sets up cartons at speeds up to 40 cartons per minute. Requires only one operator and is adjustable to a wide range of carton sizes.

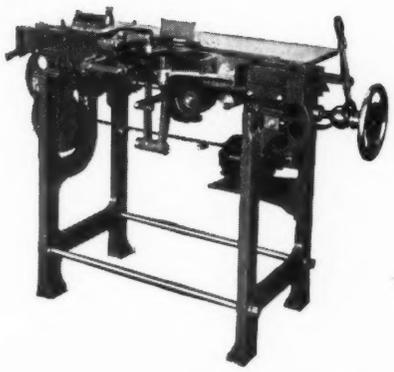
The PETERS JUNIOR CARTON FOLDING AND CLOSING MACHINE automatically closes the cartons after they are filled. The cartons enter this machine on conveyor belt and no operator is required. Handles up to 40 cartons per minute. This machine is also adjustable to a wide range of carton sizes.

SENIOR Models of these machines are available to handle automatically cartons at speeds up to 60 per minute and more.

Send us samples of the various cartons you are now using. We will gladly send specific recommendations.



The PETERS JUNIOR CARTON FORMING AND LINING MACHINE.



The PETERS JUNIOR CARTON FOLDING AND CLOSING MACHINE.

PETERS MACHINERY COMPANY
GENERAL OFFICE AND FACTORY
4700 RAVENSWOOD AVE., CHICAGO 40, ILL.

Taber SHEET PLASTIC FABRICATING MACHINES *to*

Taber machines are designed and engineered to give you all the features needed for rapid production — plus the precision required for repetitive uniformity.

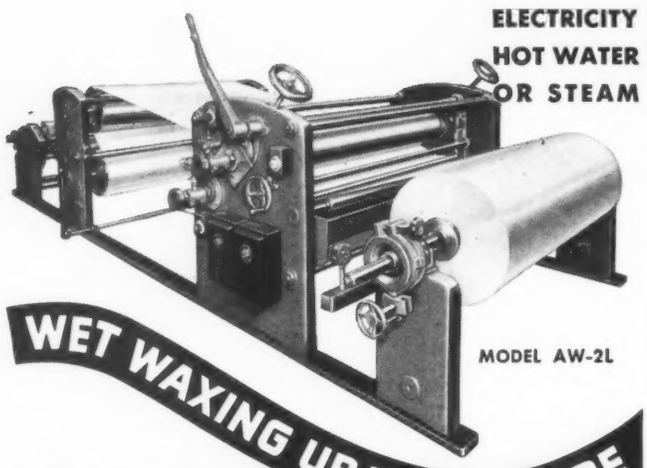
Twenty-nine years' experience in this field — built into these machines — is your guarantee of the finest in plastic fabricating equipment to manufacture the following products from thermoplastic sheeting:

1. Square and rectangular plastic containers,
2. Seamless draw containers,
3. Beaded lap-joint cylinders,
4. Folded articles,
5. Special fabricated parts and shapes.

Write for this new literature with descriptions and illustrations of the equipment you need.

FOLDING -- DEEP DRAWING -- BEADING

Taber INSTRUMENT CORPORATION
119 GOUNDRY STREET · NORTH TONAWANDA, N. Y.

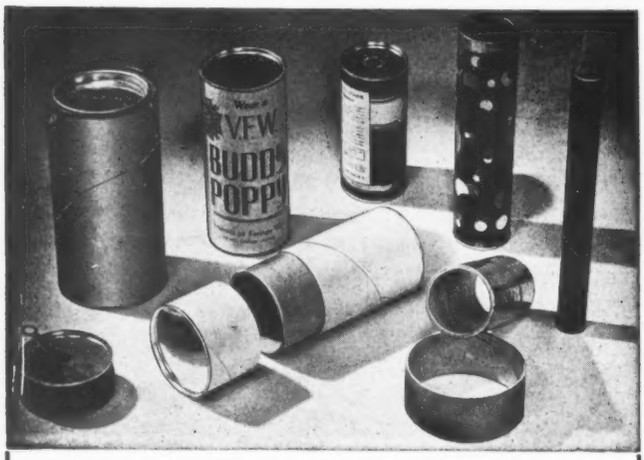


WET WAXING UP TO 80" WIDE

A new model Wet Waxer . . . featuring compact construction, functional flexibility of use, high speed, and electric, hot water or steam heating. Built in widths from 10 to 80 inches. Other models available for dry or contact waxing. Write for further information.

HUDSON-SHARP

MACHINE CO • GREEN BAY • WIS



ROUND TUBES AND PACKAGES

Available Now!

PACKARD offers spiral-wound round tubes and containers in all conceivable lengths and diameters—drum-shape, long, thin, flat. Sturdy and light-weight, PACKARD containers are perfect for any dry commodity—foods, drugs, chemicals, cosmetics, toys, novelties, insecticides, electrical products, shipping, textiles.

And these low-cost containers are available *immediately!* Whether you choose metal-end or paper-cap, plain or labelled—watch your product go in a PACKARD package.

PACKARD CONTAINER CORP.

5811 Park Avenue West New York, New Jersey

Phone Union 5-5818

Equipment and Materials
(Continued)

seals the wraps and forms a compact package with corners square and ends flat. The company reports it has been thoroughly field tested for the past few years by the installation of a limited number of these machines in the plants of several of the leading manufacturers and converters in the paper industry. It is said to effect a tremendous saving in comparison with manual wrapping and saves floor space as the machines require only a small area.

NEW PAPERBOARD CONTAINERS

Sealright Co., Inc., announces it is now in production on their "Thermoking" container—field-tested, it is claimed, to carry contents of any temperature and consistency. Made of

paperboard, it is said to be temperatureproof, non-absorbent and leakproof as a result of a new interior coating process and a fused-in bottom. The container may be imprinted on the side wall in one, two or three colors.

CELLULOSE TAPE IN PAD FORM

Pressure-sensitive cellulose tape in pad form, having one dry end tab, is available in colors, widths up to 1 in. and lengths from 1 to 5 in. from Realgold Bobbins Co., New York. In this form the tape, known as Tapad, will be more convenient for many applications due to the dry end tab which permits an easy grip and handling of the strip. The tape can be supplied with tab in contrasting color, as well as with printing on tab to read "Pull Here" or an advertising message.

GRAVITY FILLER

Packer Machinery Corp., New York, announces the development of a low cost, gravity-type, liquid-filling machine available for immediate delivery. This machine, specially designed for the multiple filling of 1- and 2-gal. cans, will prove of interest to packers of delicate liquids where a minimum amount of agitation is important. A conversion unit is also offered which may be attached to most current vacuum-type filling machinery. The gravity-conversion attachment enables either method of filling to be used by a single piece of equipment.

GLASS ROD BRUSH APPLICATOR

Calmar Co., Los Angeles, is offering a brush-applicator closure with a glass rod. This applicator-closure, with hair brush

Color Photograph by Wesley Bowm

The Write Gift in the Right Package by Farrington

Like other Sheaffer products for more than fifteen years, the beautiful new "Threesome" is *Packaged by Farrington.*
Long known as the maker of metal boxes that enhance sales appeal, Farrington's experience has run the gamut from watches to biologicals, from micrometers to perfume.
Distinctive showmanship that sells, Farrington Packaging helps insure your product a faster, smoother start on the journey from showcase to home.

FARRINGTON MANUFACTURING COMPANY
General Offices: 76-P Atherton St., Boston 30, Mass.
Canadian Plant: Farrington Mfg. Co., Ltd., 1191 Bathurst St., Toronto 4

It's *Packaged* BY *Farrington*

SPECIALTY BOXES • DISPLAY TRAYS • METAL SPECIALTIES • CHARGA-PLATE SERVICE

PLASTIC CAPS

• FOR BOTTLES
• FOR CANS
• FOR TUBES

ALL STANDARD SIZES AND COLORS AVAILABLE FROM STOCK

VOLUME PRODUCERS OF ALL SMALL THERMO-SETTING PLASTIC PARTS

LET US QUOTE ON YOUR CUSTOM CLOSURE, INHALER, OR ELECTRICAL MOLDING

WARREN PLASTICS CORPORATION
1900 Irvine Street
WARREN, PENNSYLVANIA

Canadian Plant: World Plastic Corp., Ltd., Hamilton Ont.
New York Office: Jesselson Sales Company Inc., 347 Fifth Ave.

OPTI-CHEK

WILL *CUT* REGISTRATION TIME!

The simple fool-proof operation of the OPTI-CHEK will cut your registration time in half and eliminate idle presses . . . for color registering is done *off* the press and once your plates are in printing position the job is ready to run with no further adjustments necessary. Two OPTI-CHEK models are available — Model F for use with flat-bed presses and Model R for use with rotary presses.

ALSO SEE US FOR the very latest Cottrell-Heinrich press for printing in aniline, gravure or letterpress . . . in any order or combination.

H. H. HEINRICH CO.
200 VARICK STREET
NEW YORK 14, N. Y.

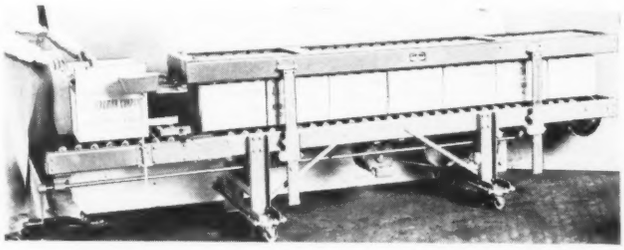
Write for folder on either Model OPTI-CHEK or for further information on the Cottrell-Heinrich press.

Equipment and Materials
(Continued)

said to be permanently secured, should prove of interest to packers of nail polish, plastic cement, paints, lacquers and other products, since the glass rod eliminates corrosion.

HAND GLUER-COMPRESSION SEALER

J. L. Ferguson C., Joliet, Ill., is offering a new "Packomatic" semi-automatic hand gluer-compression sealer for shipping containers, designed especially for handling small runs. The unit shown in the accompanying photograph, is equipped



with roller-feed table, glue pot and brush for manual application of adhesive. After applying glue and closing flaps, operator starts cases between intermittently operated belts, controlled by automatic start-and-stop mechanism. This unit is furnished in varying lengths from 6 to 24 ft. to handle cases 5 by 6 by 4 in. to 30 by 18 by 19 in. It is equipped with ball-bearing rollers in both top and bottom sections, V-belt and pulley drive with motor, and ball-bearing swivel casters.

LINERLESS ICE CREAM CARTON

Marathon Corp., Menasha, Wis., have announced an improved model of their original direct-fill, linerless, ice-cream carton. The new packages feature special end flaps and locks which

are said to insure efficient performance on automatic ice-cream-packaging machines and faster hand set-up. The exclusive new hinged tear flap affords the customer an easy, clean, sure opening and makes the package convenient for either spoon serving or slicing. Aware of the increased packaging of ice cream for self-service distribution, the rectangular surface of the new carton provides an eye-catching space for designs and copy needed to attract attention and effect sales in self-service markets. An improved type of waxing is said to assure further protection of contents. A four-color booklet on the use of the new linerless package is available to ice-cream manufacturers on request to the company's advertising department.

SUEDE-FLOCKED BOARD

Crown-Mark Paper Corp., New York, announces the introduction of suede-finish board stock, in addition to its line of suede-flocked papers and cover-weight stocks. This material makes a highly decorative package for such products as jewelry, cosmetics, cutlery, etc.

38% buy on IMPULSE

38% of supermarket grocery purchases are made on impulse! It's the eye-catching, shopper-stopper package that often stimulates this impulse to buy. Moves goods faster from shelves to market baskets. Cash in on this movement!

There are definite benefits with a package by A.P.G.

- **FOR THE PRODUCT:** Dependable protection . . . top sales appeal . . . proved packaging economy . . . 54 years of A.P.G. experience.
- **FOR THE RETAILER:** New look for his shelves . . . economy of selling time . . . protection against spoilage.
- **FOR THE CONSUMER:** Savings in shopping time . . . helpful hints on use . . . faith in purity of contents.
- **FOR YOURSELF:** More profitable packaging.

MODERN IDEAS FOR MORE PROFITABLE PACKAGING

MEMBER FLEXIBLE · PACKAGING fpi INSTITUTE ·

A.P.G.'s special print bags and envelopes come in a wide range of sizes and styles—glassines, cellophanes, metal foils or special opaque papers are available. Give your product a fresh start—your sales a fresh boost! Write us about your requirements; we'll reply promptly with samples and specific suggestions. Address: General Sales Offices, 122 East 42nd Street, New York 17, N. Y., or 4711 Foster Avenue, Chicago 30, Ill.

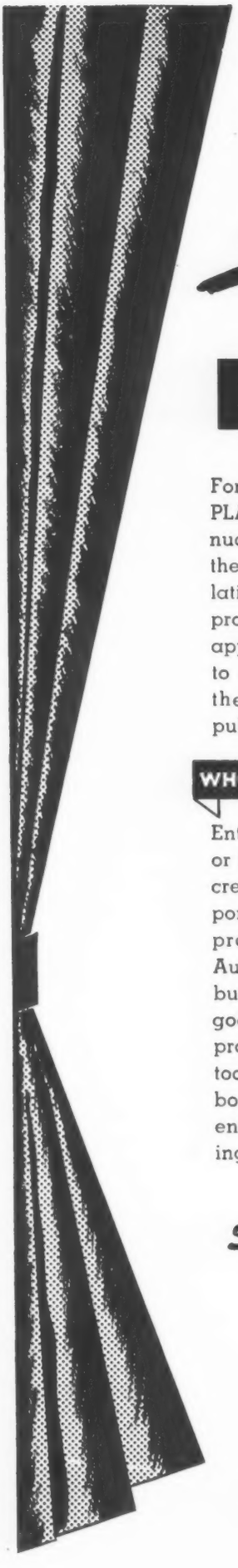
YOU HAVE THE PRODUCT — A. P. G. HAS THE PACKAGE

APGCO

The American Paper Goods Co. OVER 50 YEARS OF SERVICE

KENSINGTON, CONNECTICUT CHICAGO, ILLINOIS

Sales Offices – New York • Chicago • Boston • Philadelphia • Charlotte • Atlanta • Cincinnati • Minneapolis • Fort Worth • San Francisco • Seattle



Here Again

THE ANNUAL PLASTICS COMPETITION

For the first time since 1941, MODERN PLASTICS magazine will revive the Annual Plastics Competition. Originating in the year 1936 for the purpose of stimulating progress in plastics and for improving the appreciation of sound plastic applications, this Competition has grown to a point to where it is recognized as the Plastics Industries' outstanding public relations effort.

WHO CAN ENTER THE COMPETITION?

Entries are welcome from all concerns or individuals who have had any part in creating or producing any plastic component or product or application now in production and first marketed since August 31, 1945. There is no entry fee but all entries submitted must be in good working order and will remain the property of MODERN PLASTICS. Items too large for ordinary shipment, such as boats, vending machines, etc. should be entered with photographs and engineering drawings.

WHAT YOU GAIN

By entering your products in the Modern Plastics Competition you get an endless source of free publicity, added prestige, and wider recognition for your firm. A winning entry means that your products will be on display in the traveling exhibit which will tour the country. All entries that are used in the traveling exhibit will be identified and complete credit will accompany each winning piece. If your product is a winner, it will mean that you have contributed an outstanding application for plastics.

CLOSING DATES

All entries must be in our office on or before May 15, 1948 regardless of the postmarked date. Rush your entry to make sure you will not be too late. Entries will be judged about June 1st and winners will be announced in the September 1948 issue of Modern Plastics magazine.

Send for Your Entry Blanks

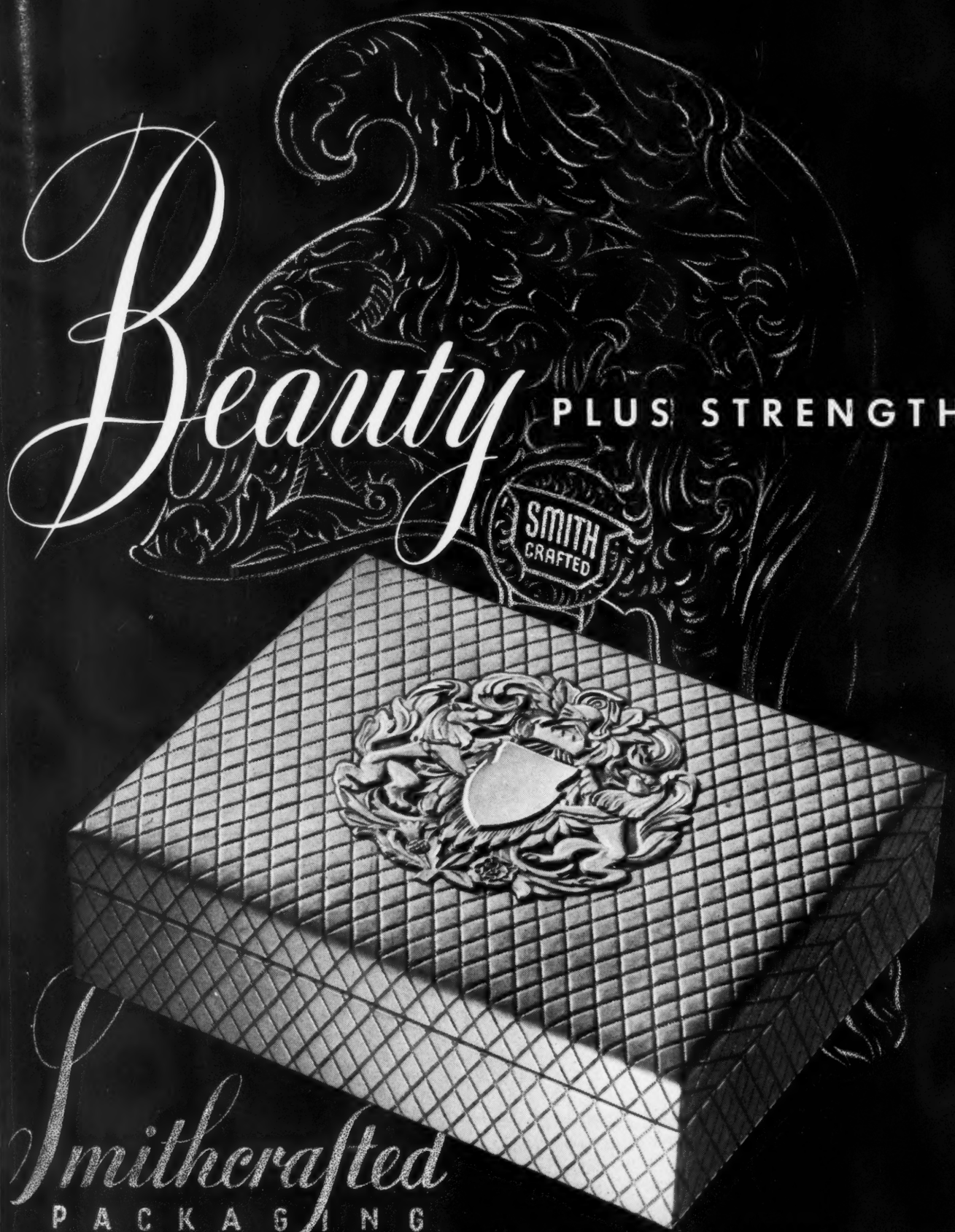
Entry blanks are available free. All you have to do is to write to Modern Plastics Magazine at the address below. You can have as many entry blanks as you wish and you can enter as many products as you care to.

ABC ABP

MODERN PLASTICS

A Breskin Publication

122-MP East 42nd Street New York 17, N. Y.



IN THE FINEST TRADITION OF SKILLED CRAFTSMANSHIP, CONTAINERS CUSTOM BUILT TO FILL MODERN NEEDS FOR POINT-OF-SALES APPEAL

ON EXHIBIT, APRIL 26-30, IN BOOTH 210 A.M.A PACKAGING EXPOSITION, CLEVELAND

THE S. K. SMITH COMPANY

2857 N. Western Avenue, Chicago 18, Illinois
332 S. La Brea, Los Angeles 52 Vanderbilt Ave., New York

Plants and People

Negotiations between **Stokes & Smith Co.,** Philadelphia, and **Transparent-Wrap Machine Corp.,** the holders of rights to the **Transwrap** packaging machine which has been manufactured under license for several years by Stokes & Smith, have been concluded. Stokes & Smith will continue to manufacture the machine, but henceforth will use the name **"Stokeswrap."** The "Transwrap" machine will be manufactured by the Transparent-Wrap Machine Corp., Ridgefield Park, N. J.

Charles M. Dooley has been appointed manager of the Merchandising and Consumer Research Divisions of the **Glass Container Div.** of **Owens-Illinois Glass Co.,** Toledo, Ohio. Mr. Dooley has been with the company four years, serving first in the Merchandising Division and then in the Market and Consumer Research Division. **Walter D. Plummer,** formerly Western regional market development manager, has been named as Mr. Dooley's assistant. Mr. Plummer is being succeeded in Chicago by **Richard R. Fowler.** New market development managers for the firm are **Charles E. Deger,** Central and Southeastern region, and **N. F. Bowes,** Eastern region.

C. M. Dooley

Operations of the Toledo closure and plastics plants of Owens-Illinois have been transferred to St. Charles, Ill.

Purchase of the **Grabill Mfg. Co.,** Woodstock, Va., by **Food Machinery Corp.,** Riverside, Calif., has been announced by **Paul L. Davies,** president. Food Machinery will continue to manufacture the apple-packing equipment made by Grabill and will expand the list of packing-house products to be built in the Woodstock plant to include items now being built in the corporation's other factories. The Grabill plant will be operated as a branch of the John Bean Division of Food Machinery, Lansing, Mich., principal distributor of Grabill equipment since 1940.

Charles A. Southwick, Jr., announces the creation of an independent consulting service for packaging, with headquarters for the present at Mt. Vernon, Ohio. Mr. Southwick, formerly in charge of package research and development for General Foods Corp., is the author of numerous test methods, including the well known Southwick Test for water-vapor transmission. During the war he served with the War Production Board and more recently has been affiliated with Shellmar Products Corp. He will continue to serve as Technical Editor of MODERN PACKAGING, a post he has filled since 1942. It is Mr. Southwick's intention to create a technical service which will cover research, development, testing and consultation in all phases of packaging, including plastics as they relate to packaging.

Inland Container Corp., Indianapolis, Ind., announces that its new Macon, Ga., plant is now in operation. Adjacent to the new plant is the Macon Kraft Co. paper mill, in which Inland Container Corp. and Mead Corp. have joint interests. From pulpwood cut in the vicinity, the mill will manufacture kraft paperboard for use by Inland in the manufacture of kraft corrugated fibre shipping containers. **Frank M. Talbot** has been appointed sales manager of the new operation and **Walter E. Davis** has been named plant works manager.

William G. Forster has been named assistant general manager of **Geo. H. Morrill, General Printing Ink Division, Sun Chemical Corp.,** New York.

Pacific District headquarters of the **Harris-Seybold Co.** have been moved to 885 Bryant St., San Francisco.

Union Bag & Paper Corp., New York, has purchased the plant of **Corrugated Containers, Inc.,** Chicago, for the production of corrugated boxes. **M. Norian,** former president of Corrugated Containers, will remain as sales manager for the Chicago district. Plans have been made to enlarge the plant.

Container Corp. of America's new folding-carton plant at Greensboro, N. C., is now in limited operation. As the

first of the company's fabricating plants to be built to its own specifications, the plant is said to be a model of modern industrial architecture and efficient layout.

Cambridge Paper Box Co., Cambridge, Mass., is expanding its facilities to include the manufacture of folding boxes, according to an announcement by **William Perry,** president of the firm. The announcement was made at a sales meeting held in the newly renovated offices of the company. At the same time, the new **Hall of Awards** and **Hall of Packaging** were dedicated. The Hall of Awards contains framed certificates showing the various awards won by the company in MODERN PACKAGING's All-America Packaging Competitions. The Hall of Packaging contains samples of the company's different types of containers and allied products. These exhibits will be changed from time to time as new packaging projects are developed.

The New York offices of **Acme Steel Co.** are now located at 11 E. 44th St., New York.

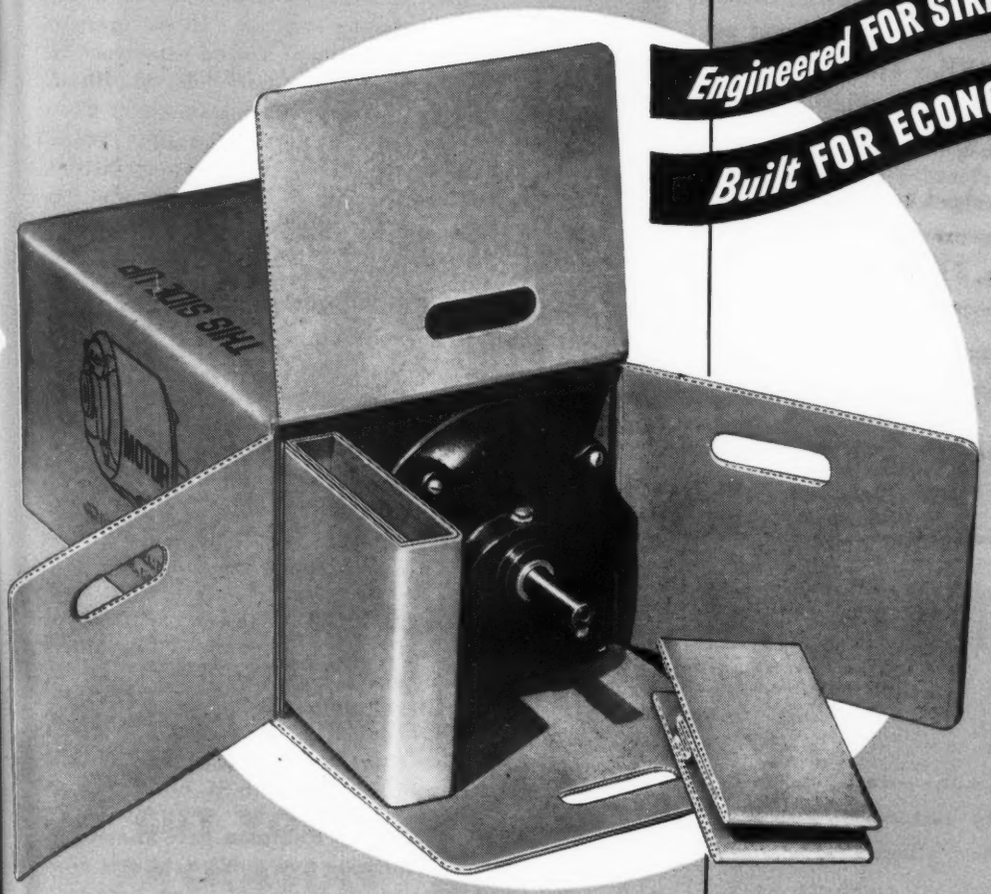
E. R. Hankins, founder and president of **Hankins Container Co.,** was elected board chairman at the firm's annual meeting in Union, N. J., where a new 150,000 sq. ft. plant has been erected. **K. A. Bennett,** executive vice president, was elected president of the firm.

Edmund F. Ball has been named president of **Ball Bros. Co.,** Muncie, Ind., to succeed **George A. Ball,** who will con-

H & D BOXES

Engineered FOR STRENGTH

Built FOR ECONOMY



H & D corrugated boxes do *more* than protect in transit; they cut packing time, material costs, freight charges—pare distribution expense to the core. Easier to handle, warehouse, *sell*, H & D-packed products bring more profits to the manufacturer . . . at *less* cost to the buyer. Remember—H & D boxes make a good product better. Consult the H & D Package Laboratory on ALL packaging problems.

HINDE & DAUCH

Authority on Packaging

EXECUTIVE OFFICES: 4802 DECATUR ST. • SANDUSKY, OHIO

FACTORIES IN:

BALTIMORE 13, MD. • BUFFALO 6, N. Y. • CHICAGO 32, ILLINOIS
CLEVELAND 2, OHIO • DETROIT 27, MICH. • GLOUCESTER, N. J.
HOBOKEN, N. J. • KANSAS CITY 19, KANSAS • LENOIR, N. C.
MONTREAL, QUEBEC • RICHMOND 12, VA. • ST. LOUIS 15, MO.
SANDUSKY, OHIO • TORONTO, ONTARIO • WATERTOWN, MASS.

Don't Forget

THE MODERN PLASTICS COMPETITION

Closes May 15, 1948

Send for your entry blanks. You can get as many as you want FREE. There is no cost for entering your product in the Plastics Competition.

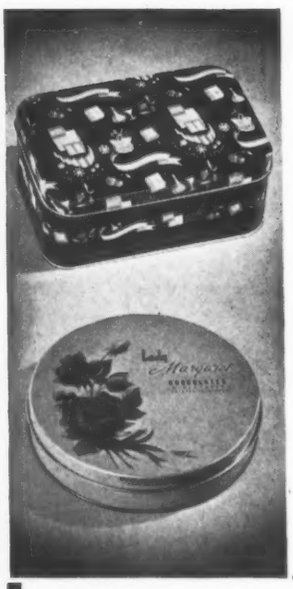
Your product will be judged by a distinguished panel composed of 6 top executives—2 from the field of merchandising, 2 from the field of design and 2 industrial users of plastics.

MODERN PLASTICS

A BRESKIN PUBLICATION

122 East 42nd Street New York 17, N. Y.

Cans of Distinction



Here are "customer-catching" cans—designed and made *exclusively* for your product. These lithographed containers combine easy brand identification with ideal product protection.

We also manufacture a complete line of round cans with stock designs for candies cakes and cookies.

Write today for our illustrated catalog.

"No other container protects like the can"

Empire Can Corp.

220 Ashford St. Brooklyn 7, N. Y. APplegate 7-4701

Plants and People (Continued)

tinue to serve the firm as board chairman. Other executive changes include **Alexander M. Bracken,** now vice president and general counsel; **Fred J. Petty,** vice president; **George E. Myers,** treasurer.

P. E. Fagan, formerly San Francisco district sales manager, **Continental Can Co.,** has been appointed general sales manager of the Pacific Division, succeeding F. E. Falk, who has left the company. Mr. Fagan has been connected with the firm's Pacific Coast organization for 19 years. He will bring to his new assignment a wide experience in over-all company affairs. **H. M. Blinn,** Cincinnati district sales manager of Continental Can Co. for the last four years, has been appointed San Francisco district sales manager. **G. A. Thacker,** who has been assistant sales manager of the company's Chicago district, will succeed Mr. Blinn in Cincinnati.

P. E. Fagan

J. S. Devlin

John S. Devlin, formerly with the War Assets Administration and before that operations engineer in the Far East for the Standard-Vacuum Oil Co., has been appointed product sales manager for steel containers, Continental Can Co. In his new capacity, Mr. Devlin will have staff responsibility for the sale of welded steel drums and pails, kerosene cans, light-gauge drums and non-welded flaring pails, with headquarters in New York.

Jack Adair, former purchasing agent and sales manager for United Bottle Supply Corp., has organized **The Adair Glass Corp.** at 57 William St., New York.

Bradford R. Stetson, superintendent of the Minneapolis bag factory, **Bemis Bro. Bag Co.,** has been advanced to the company's General Production Dept. in St. Louis.

Irving H. DuFine and **Herbert Kaufman** have announced the formation of an advertising and public-relations firm, **DuFine-Kaufman, Inc.,** at 103 Park Ave., New York.

Roger D. McCoy, consulting engineer specializing in materials handling and packaging, has announced the removal of his offices to 57 Post St., San Francisco.

L. E. Arneson, formerly assistant superintendent of the folding box division of the **Morris Paper Mills,** Morris, Ill., has been appointed technical superintendent over all of the folding box plants of the company.

Morningstar, Nicol, Inc., have announced the consolidation of its industrial adhesive manufacturing subsidiaries, **Paisley Products, Inc. of Illinois** and **Paisley Products, Inc. of New York. Murray Stempel,** formerly general manager of the Chicago company, has been elected vice president and general manager of the consolidated operations. **Earl C. Lenz,** formerly sales and service manager of the Chicago plant, has been named general sales manager and will continue to direct advertising and sales promotional activities of the consolidated operations. **L. J. LaBrie,** formerly technical director, has assumed the position of

"LADDIES" POTATO CHIPS

Sell because they're Seen

. . . in striking Foil Package Printed from *Pre-Madeready* MOSSTYPE RUBBER PLATES

Ever miss the sound of crispy crunching at a party because the potato chips had been forgotten? If you have it's probably because "Laddies" weren't on the grocer's shelf when your hostess went a-shopping. Combining powerful attention value with the suggestion of tasty contents, this eye-catching package *sells* what it protects.

The "Laddies" design in brilliant red, white and blue incorporates small reverse type and line drawing, finely detailed illustration, large solid areas and close register. It has been faithfully reproduced on aluminum foil by Arlette, Inc., Bloomfield, N. J. from MOSSTYPES—the rubber plates used to print America's outstanding flexible packages.

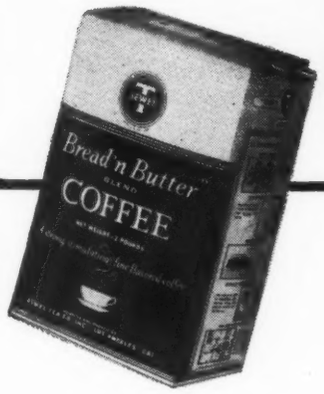
Consult us in the *planning* stage of your very next job.

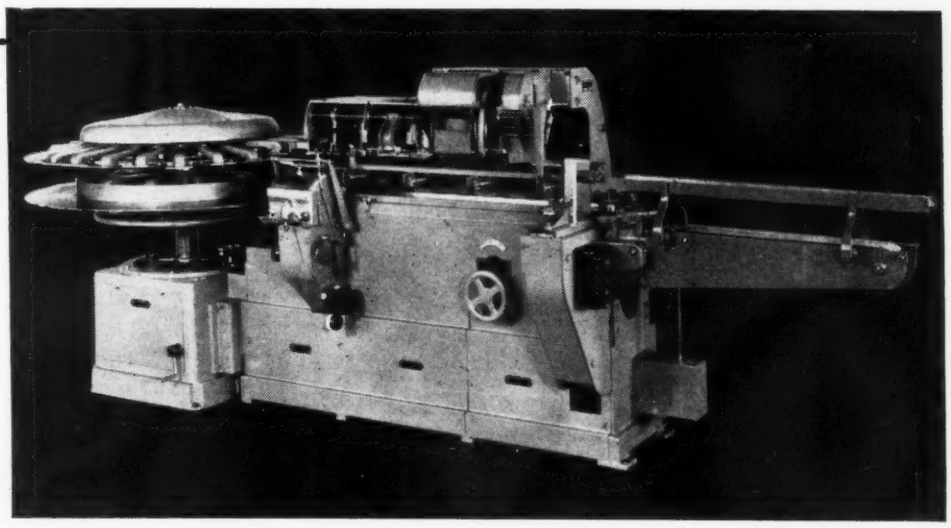
MOSSTYPE CORPORATION
33 Flatbush Avenue
Brooklyn 17, New York

pre-madeready MOLDED RUBBER PLATES • DESIGN ROLLERS

Airmail and MOSSTYPE SPECIFICATION SHEETS (free on request) enable rubber plate users anywhere in the U.S.A. to enjoy MOSSTYPE SERVICE

LET
SEALTITE
CUT YOUR PACKAGING COSTS





IMPORTANT savings invariably result when a SEALTITE Bag Sealer is installed in a packaging line. Some users report costs as much as $500.00 lower per month per machine than with previous methods of packaging.

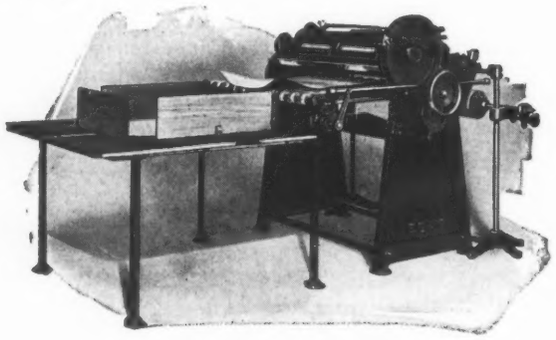
SEALTITE is fully automatic. It opens bags, fills, settles, shapes and seals at speeds ranging from 30 to 50 bags per minute on standard gusseted 2 to 10 lb. paper bags. SEALTITE delivers a square, flat-topped, sift-proof package that stacks like a carton.

If you are packaging in paper bags, write for information on SEALTITE.

CONSOLIDATED PACKAGING MACHINERY CORP.
BUFFALO 13 . N.Y.

OVER 1000 BECK SHEET CUTTERS

have been sold to lick the "cost thief" in cutting into sheets all kinds of transparent papers and other packaging materials. Particularly are the **"ELECTRONIC-EYE"** solving the sheeting problems of your competitors. Their unfailing performance for accuracy and high productions might also be the answer to your searching for profit producing equipment. May we answer your questions —NOW?



CHARLES BECK MACHINE CO.

13th & Callowhill Streets Philadelphia, Pa.

The MASON MAILMASTER...

..for Postal Shipments

No Wrapping – No Tying, 65 sizes – 1,000,000 boxes in stock for immediate delivery. —Send for Catalogue.

THE **Mason** BOX COMPANY

MAIN OFFICE
ATTLEBORO FALLS, MASS.

NEW YORK OFFICE
175 FIFTH AVE.

FACTORIES: ATTLEBORO FALLS AND TAUNTON, MASS.

MANUFACTURERS OF A COMPLETE LINE OF SET-UP BOXES

Plants and People (Continued)

sales manager of the New York plant. Announcement has also been made that the Hawthorne, N. J., dextrine plant of Morningstar, Nicol, Inc., is undergoing construction to increase production over 30%.

Delon Walsh announces the organization of **Package Craft, Inc.,** with offices at 202 E. 44th St., New York, and converting and printing plant at Paterson, N. J. The firm will specialize in working out coordinated packaging programs in addition to the converting and printing of cellophane and glassine bags, sheets and rolls. Mr. Walsh was formerly with The Dobeckmun Co. and Milprint, Inc.

D. Walsh

W. Ralston & Co. are now in full production on a complete line of industrial protective papers at their new plant in Old Bridge, N. J. Production of creped papers at the company's Niagara Falls plant has been stepped up more than 50%, the company states, as a result of machinery improvements.

At a recent meeting, the board of directors of **Pneumatic Scale Corp., Ltd.,** North Quincy, Mass., elected **Stanley R. Howard** as vice president in charge of engineering; **Frank C. Drinkwater** as vice president in charge of service and installation; **Lawrence F. Blackwell** as vice president in charge of production.

H. G. Weber & Co., Inc., of Kiel, Wis., have supplied two additional Weber S. O. S. pasted bottom multiwall paper-bag machines to the **St. Regis Paper Co.**'s new bag plant at North Pensacola, Fla.

Matthias Paper Corp., Philadelphia, has established a New York City office in the Hudson Terminal Bldg., 30 Church St. **Robert F. Feuss** has been appointed as the metropolitan New York area representative.

At the annual meeting of the executive committee of the **American Designers Institute, Frank Gianninoto** of New York was elected chairman of the New York Chapter. Other officers elected were: vice chairman, **Robert Gruen;** secretary, **Charles Davies;** treasurer, **Paul Wrablica. Gordon Obrig** and **Clarence Hornung** were elected members of the executive board.

Frederick W. Meuschke has been appointed assistant sales promotion manager of **Monsanto Chemical Co.'s Plastics Division.** Mr. Meuschke has been advertising manager of the Rumford Chemical Works for the past three years.

Roger Wolcott, managing director of the **National Consumer-Retailer Council, Inc.,** New York, has announced that he is retiring from the Council. He has been with the organization since its inception in 1937.

Container Laboratories, Inc., have announced the appointment of **H. R. Kattelmann** as manager of their San Francisco laboratory. Mr. Kattelmann replaces **Gilbert A. Pitman,** who has resigned to enter the corrugated box manufacturing industry.

A. M. Collins Mfg. Co., Philadelphia, makers of paper products, have opened a New York sales promotion office

Classic Beauty in vial design
with the new positive re-seal

• Here is lustrous, flawless glass in the desirable "ethical" shape, plus a distinctive new translucent stopper . . . combined in an eye-catching container which assures flattering display and ready acceptance of your product.

Here is maximum utility! The straight sides and wide neck simplify filling. The smooth fit of the stopper allows removing and replacing in two easy movements.

Here is the tightest seal against moisture penetration Kimble has ever developed! Even after removing and replacing the resilient stopper many times, its re-sealing ability is so nearly perfect that there is no trace of moisture penetration to the most absorbent of tablets or powders.

You'll want to examine and test Opticlear Vials with your own products. We'll be glad to send you a sample set. Please mention type of product and sizes of vials needed.

SPECIFY KIMBLE FOR ASSURANCE OF CONTAINER QUALITY

KIMBLE GLASS TOLEDO 1, OHIO
Division of Owens-Illinois Glass Company

GIVE YOUR PRODUCT Shatterproof PROTECTION with LUSTEROID Vials and Tubes

Customers appreciate products packaged in Lusteroid. They know that these products are *safe* from accidental roughness in handling because Lusteroid will not break.

It's worth looking into Lusteroid for product protection *and* distinctive packaging. There's economy in handling, labeling, packing and shipping. All colors of the rainbow—clear or opaque. Sizes from ¼" to 1¼" in diameter and lengths up to 6" with cork, slip-on or screw-cap closures.

Write for descriptive bulletin.

LUSTEROID CONTAINER COMPANY, INC.
10 Parker Avenue, West
Maplewood, New Jersey

Plants and People
(Continued)

at 11 W. 42nd St. **Carl T. Collingham,** formerly with Bulkley, Dunton & Co., will have charge of the new office.

MRM Co., Inc., Brooklyn, manufacturers of filling and conveying equipment, will open a West Coast sales and service branch in Los Angeles.

Bryce Beard, Jr., has been appointed sales representative for **Crown Cork & Seal Co., Inc.,** Baltimore, Md., in the North Carolina territory.

Stephen T. Miles, formerly president of the SpecialtyInsulation Mfg. Co., and vice president of Colasta Co., is now connected with **W. T. La Rose & Associates, Inc.,** Troy, N. Y., manufacturers of electronic heating equipment, in charge of all sales and engineering for high-frequency heating and curing of rubber.

Advertising Metal Display Co., Chicago, designers and builders of counter and floor displays, have appointed **Bruce H. Sielaff,** Minneapolis, as their Northwest factory representative.

Newark School of Fine & Industrial Art, Newark, N. J., announces the reappointment of **Martin Schnur,** industrial designer, to the faculty of the Industrial Design Dept., as instructor in Package and Trademark Design.

Van Doren, Nowland & Schladermundt, industrial designers of New York and Philadelphia, have affiliated with two leading design firms in London and Paris. The companies are **European Field Research & Design Unit** of London and **Compagnie Pour L'Etude d'Equipments Industriels** of Paris.

Lee Hickox, formerly chief of the Packaging Section, Military Planning Division, Office of the Quartermaster General, has joined the staff of **Container Laboratories, Inc.,** and will make his headquarters at their Chicago office. He has recently been in charge of a special development program with the Standard Cap & Seal Corp.

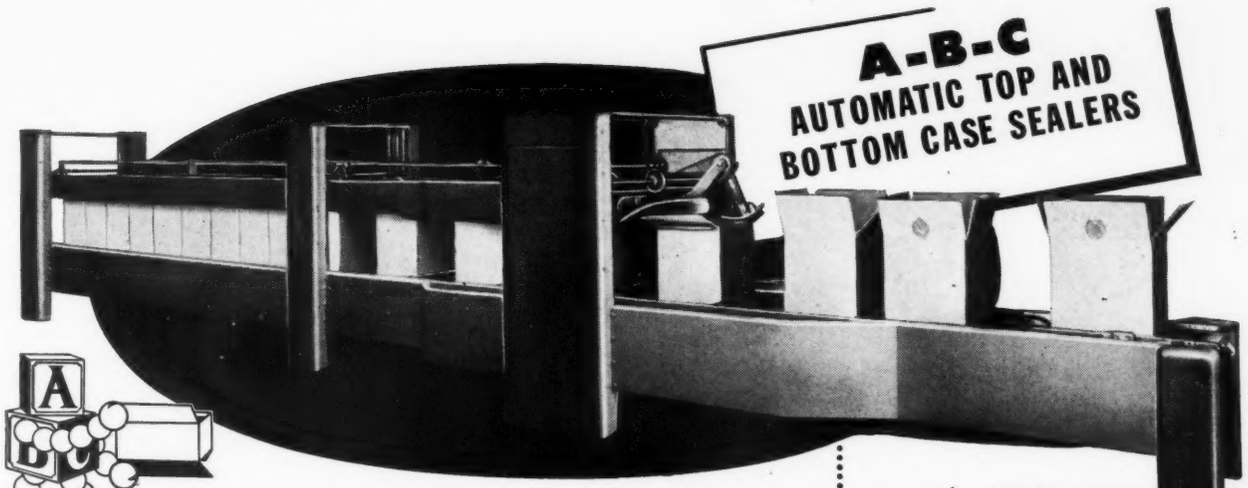
Arthur E. Grundy, Pliofilm representative at San Francisco for **The Goodyear Tire & Rubber Co.,** Akron, Ohio, is now West Coast district manager for Pliofilm sales.

Joseph H. Robb has joined the sales staff of **Mid-Continent Sales Co.,** Minneapolis, Minn., distributors of packaging and container supplies. He will cover part of the Twin Cities and Southern Minnesota.

Peter D. Bowley & Associates now represents the **U. S. Bottlers' Machinery Co.** on the entire Western Coast. The territory includes all of California, Oregon, Washington, Idaho, Nevada and Arizona. The Bowley firm has offices in San Francisco, Los Angeles, Seattle, Portland and Phoenix.

W. H. Deisroth Co., Inc., set-up box manufacturers, announce the removal of their office and factory to 21st & Hunting Park Ave., Philadelphia. Their new quarters afford an increase of 15,000 sq. ft. of space.

George Z. Sutton, vice president of **Stokes & Smith Co.,** Philadelphia, died suddenly on Feb. 16 at the age of 66.



TAKE THE "HAND" out of HANDLING

Expensive sealing operations are done faster, more economically with the streamlined A-B-C Top and Bottom Case Sealer. A recent installation in one plant saved $4000 the first year. Cases are sealed directly from the production line at speeds up to 60 cases per minute. It's all automatic. No operators required. Top inner flaps are tucked as bottom outer flaps are opened without disturbing contents of case. Glue is applied both top and bottom and outer flaps folded in place simultaneously. Compression unit with individual spring rollers applies even pressure to complete the sealing job. Unit can seal top flaps only or bottom flaps only. A-B-C specializes in building packaging machinery exclusively. Let an A-B-C specialist help solve your packaging problems. Write A-B-C PACKAGING MACHINE CORP., Dept. M5, Quincy, Ill.

CHECK THESE A-B-C FEATURES

- Built in power permits finger tip control
- Simple, sturdy construction for minimum down time . . . low maintenance cost
- Adjustable to wide range of case sizes by pressing a button
- Glue applicator and compression unit supported at 4 points for even pressure
- All main drives ball bearing equipped—geared head motors

A-B-C

PACKAGING MACHINE CORP.

MOBERLY, MISSOURI

OTHER A-B-C PRODUCTS

Automatic Top Sealer • Automatic Side Sealer • Semi-Automatic Bottom Sealer Hand Gluer • Glass Container Case Packer

making a good impression...

Boxes, cartons, wraps, bags and labels printed with popular Driscoll Inks make a good impression wherever—and *whenever*—they are seen. For brilliant, smooth-flowing Driscoll Coverwell retains its original color and character long after leaving the pressroom. Driscoll Inks are available for all types of reproduction processes, for all printing surfaces. Hundreds of vibrant colors to choose from—each contributing to that important *good impression.*

DRISCOLL COVERWELL INKS FOR EVERY PRINTING PURPOSE

MARTIN DRISCOLL & CO.

610 FEDERAL STREET, CHICAGO 5, ILL.

BRANCH: 407 E. MICHIGAN ST., MILWAUKEE, WIS.

Affiliated Concern: Great Western Printing Ink Co., Portland, Ore.

For Your Information

The Packaging Machinery Mfrs. Institute has announced two membership meetings for Spring, 1948. On April 26 the group will hold a business meeting and dinner at the Hotel Statler, Cleveland, the headquarters hotel for the Institute during the Packaging Exposition. A special three-day meeting of the Institute is scheduled for the Homestead Hotel, Hot Springs, Va., from May 22 to 25.

The Institute has been selected as one of three national manufacturing trade associations to have representation on the board of directors of the **National Assn. of Manufacturers. George A. Mohlman,** president of Package Machinery Co., has been appointed an NAM director to represent the Packaging Machinery Mfrs. Institute.

For the first time since 1941, *Modern Plastics* will revive the annual plastics competition. The **Seventh Modern Plastics Competition** this year will include a packaging classification. Originated in 1936 for the purposes of stimulating progress in plastics and improving the appreciation of plastics by public and industrial users, the competitions have grown in recognition to the point where in 1941 thousands of entries were received. Details of the forthcoming competition may be obtained by writing *Modern Plastics*, 122 E. 42nd St., New York. Entries will be accepted from now until May 15, 1948. Any number of entries may be submitted and there are no fees or obligations of any kind. The Board of Judges is comprised of six top executives, two from the field of merchandising, two from the field of design and two industrial users of plastics. Judging will take place on or about June 1, 1948, and winners will be announced in the Sept., 1948, issue of *Modern Plastics*. Following the competition, traveling exhibits of the award-winning items will tour the United States and other countries.

The care of paper bags during shipping and storage to insure their maximum strength and utility is the subject of an illustrated booklet now being distributed by **Bemis Bro. Bag Co.,** 408 Pine St., St. Louis, Mo. Titled "How to Get Best Performance from Bemis Paper Bags," the booklet may be obtained by writing to the company's main office or any of its branches.

The American Management Assn. has published a review of current policies, practices and problems in seven fields of business and industrial management titled "Modern Management Practices and Problems." The volume includes a chapter on "Package Development and Merchandising" by **E. A. Throckmorton,** president of **Container Laboratories, Inc.,** Chicago. The pamphlet is No. 139 of AMA's General Management series and may be purchased from the association, 330 W. 42nd St., New York, at $1 a copy.

The Assn. of American Railroads has established within its Freight Loading & Container Section a **Container Committee,** with headquarters at 59 E. Van Buren St., Chicago, to receive and consider proposals for changes in container specifications, new specifications for containers and loading rules for fresh fruits and fresh or green vegetables (not cold packed nor frozen) and melons.

Interested shippers may receive copies of **Pamphlet No. 4**—Rules Regulating the Safe Loading of Carload Shipments of Commodities in Barrels, Drums or Kegs in Closed Cars and Protection of Equipment—by addressing the secretary of the Freight Loading & Container Section, AAR, 59 E. Van Buren St., Chicago.

D. R. Simmons of Bainbridge, Ga., official of both the **Elberta Crate & Box Co.** and the **Southern Crate & Veneer Co.,** was elected president of the **Wirebound Box Mfrs. Assn.** at its annual meeting held recently in Hollywood, Calif. **E. S. Barnhill** of the **Indianapolis Wire Bound Box Co.,** Indianapolis, was elected vice president. The membership voted to increase the board of directors from 11 to 13. In addition to Mr. Simmons and Mr. Barnhill, they are: **George H. Kubes** of **American Box Co.,** Cleveland; **R. D. Brookman** of **Jackson Box Co.,** Black River Falls, Wis.; **J. B. Adkins** of **Adkins Mfg. Co.,** Gainesville, Fla.; **Stanley C. Craven** of **California Barrel Co., Ltd.,** San Francisco; **N. W. Embry** of **General Box Co.,** Chicago; **D. R. Gooding** of **Wisconsin Box Co.,** Wausau, Wis.; **Fred J. Martin, Jr.,** of **Martin Bros. Box Co.,** Toledo; **J. R. Miller** of **T. R. Miller Mill Co.,** Brewton, Ala.; **Shelley Schuster** of **Great Southern Box Co.,** New Orleans; **A. L. Whiton** of **Chicago Mill & Lumber Co.,** Chicago; **R. F. Miles** of **Rathborne, Hair & Ridgway Co.,** Chicago.

L. S. Beale, executive secretary of the association, reported that the number of wirebound crates and boxes manufactured by members in 1947 was 23% greater than that of the previous year. A banner year is expected in 1948.

Extensive references to packaging appear in the new publication, **"Literature Search on the Preservation of Foods**

What's doing

March 15–18—**National Assn. of Frozen Food Packers,** Stevens Hotel, Chicago.

March 28–31—**Society of the Plastics Industry,** West Coast Section, conference and exhibit, Santa Barbara, Calif.

April 3–8—**National Wholesale Druggists Assn.,** Biltmore, Palm Beach, Fla.

April 12–14—**American Pharmaceutical Mfrs. Assn.,** Hotel Nacional de Cuba, Havana, Cuba.

April 26—**Packaging Machinery Mfrs. Institute,** Hotel Statler, Cleveland.

April 26–27—**American Supply & Machine Mfrs. Assn.,** Atlantic City.

April 26–30—**American Management Assn. Packaging Conference and Exposition,** Public Auditorium, Cleveland.

You buy the best in closure design technique as well as top product protection when you specify O-I metal closures.

TOPS FOR SELLING!

• Give your product double advertising impact with brightly colored Owens-Illinois *lithographed* metal closures.

In retailers' displays, a colorful lithographed closure flags consumer eyes—stimulates profitable impulse (extra!) sales.

And in the home, an O-I lithographed closure impresses your name and trade mark on your customers' minds every time your product is used—helps build *repeat* sales.

How to get full value from this display space? Let our expert design engineers help you.

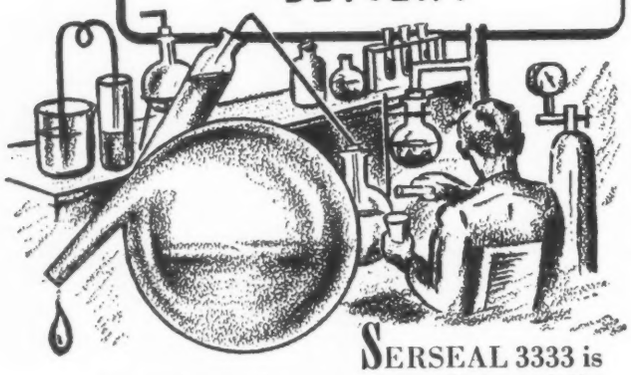
Call on us. We can fill your order in any quantity NOW.

CLOSURE DIVISION — OWENS-ILLINOIS GLASS COMPANY

TOLEDO 1, OHIO • BRANCHES IN PRINCIPAL CITIES

"Commerce"
SERSEAL 3333
CONCENTRATE
FOR SPECIAL APPLICATIONS

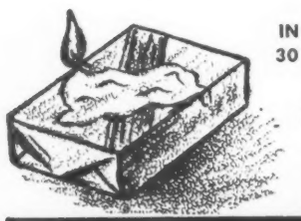
DESIGNED TO MAKE GOOD MINERAL WAXES BETTER!



SERSEAL 3333 is a hydro-carbon compound, carefully milled and controlled in fabrication. A versatile additive that is easy to handle.

SERSEAL 3333 has an excellent compatibility ratio with all mineral waxes to formulate coating, laminating and heat sealing compounds of the highest quality.

SERSEAL 3333 is the answer to problems of flexibility, controlled viscosity, moisture and moisture vapor resistance, adhesion, cold flow and heat seal. When blended with good waxes SERSEAL 3333 produces compounds of superior quality, assures positive performance and greater economy.



IMMEDIATELY AVAILABLE
IN 35 POUND PAPER BULKANS,
30 GALLON 28 GAUGE DRUMS,
CARLOADS OR LESS

Samples upon request

"Commerce"

COMMERCE OIL CORPORATION
Formerly HARRY R. LEWIS COMPANY
WARREN, PENNSYLVANIA

For Your Information
(Continued)

By Freezing," issued as Special Report No. 25 by the **State Engineering Experiment Station, Georgia School of Technology,** Atlanta, Ga. This is the first supplement to the Station's original report. It covers literature for Jan., 1946, through July, 1947, and includes 1,288 references. Copies, priced at $3, are available on request to Gerald A. Rosselot, director of the Station.

Full-color motion pictures have been made by the **New Jersey Machine Corp.** with a synchronized narration on the Pony Labelrite labeling machine. It tells the whole story on labeling, shows the application of labels to various sized objects and features mechanical details of the labeler. Complete sound films and projectors are being distributed to various branches of the corporation and will be available on request from interested manufacturers or responsible business groups.

Comprehensive merchandising information for the food industry is covered in a 60-page book, **"Chicago's $1,200,-000,000 Food Market,"** recently released by the **Bob White Organization,** 56 E. Walton Pl., Chicago, grocery promotion specialists. Complimentary copies may be obtained by writing the company.

A color motion picture showing the production of aluminum from raw bauxite to finished products, "Pigs and Progress," has just been released by the **Reynolds Metals Co.** The picture, in 16 mm. with sound track, is being made available without charge for showings before interested groups. Requests for use of the film should be made to the Advertising Department, Reynolds Metals Co., 2000 S. Ninth St., Louisville, Ky.

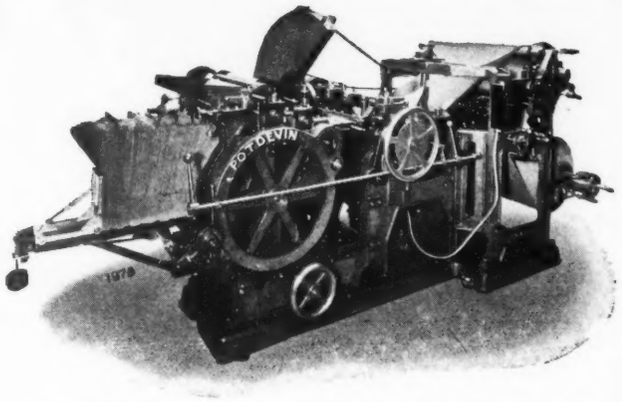
Hampden Glazed Paper & Card Co., Holyoke, Mass., have issued two new sample books, No. 162 and No. 163, of their embossed sateen papers. Copies may be obtained on request to the firm.

Geo. H. Morrill, General Printing Ink Division of Sun Chemical Corp., 100 Sixth Ave., New York, have issued a practical specimen book demonstrating their newspaper inks in Web Press Colors. These inks are shown in 24 standard colors, with screen values indicated for each.

The Yale & Towne Mfg. Co. has just published a 30-page bulletin on its line of Worksaver electric trucks. Each of

Modern Packaging joins A.B.P.

It is with an increased sense of its responsibility as a reporter and interpreter of progress in the packaging field that MODERN PACKAGING announces its acceptance of membership in The Associated Business Papers organization. This national association, founded in 1916 to set standards—editorial, circulation and advertising—for business-paper publishing, has grown to a membership today of over 130. Of these, MODERN PACKAGING is the only publication in its field which now holds membership in both the A.B.P. and the Audit Bureau of Circulation.



A POTDEVIN "Century Line" Flat and Square Bag Machine of the above type, set the production figure reported in this ad.

"409,000 BAGS IN 7½ Hrs." ON A POTDEVIN

SPECIALTY BAG MACHINE

That's one of many reports from satisfied POTDEVIN clients—clients who year after year come to POTDEVIN looking for better bag machinery. They want speed and economy; continuous high-speed operation with a minimum of down time; they want simplified adjustments and sturdy machines built for a life-time of service.

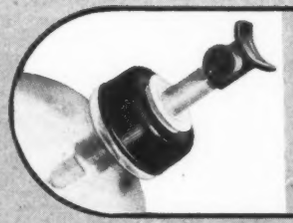
Because they get all these desirable features—plus more than 50 years of bag machine engineering and designing "know how"—they buy POTDEVINS—the *best* in bag machinery.

OLD IN EXPERIENCE
YOUNG IN IDEAS

POTDEVIN MACHINE CO.
EST. 1893
1244 38TH ST. BROOKLYN 18, N. Y.

POTDEVIN

AGAIN from CALMAR... *2 new liquid dispensers*

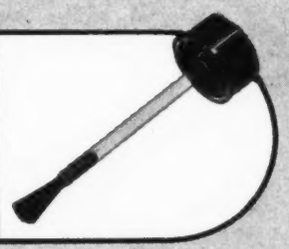


SPRAYER*

Low cost is feature of this non-corrosive, colorful, all-plastic sprayer. Possesses high visual appeal, strong re-use value. For use with practically any sprayable or dispensable liquid product: glass cleaner, disinfectant, deodorant, medicament, cosmetic, liquid food or flavor. Available with 22, 24, 28, 30, 33 mm. metal or molded plastic caps for bottles and cans.

BRUSH APPLICATOR

Perfect for applying nail polish, plastic cement, plastic dyes, adhesives, paints, lacquers and countless other products. Glass rod eliminates corrosion. Hair permanently secured — will not come out. New, inexpensive.



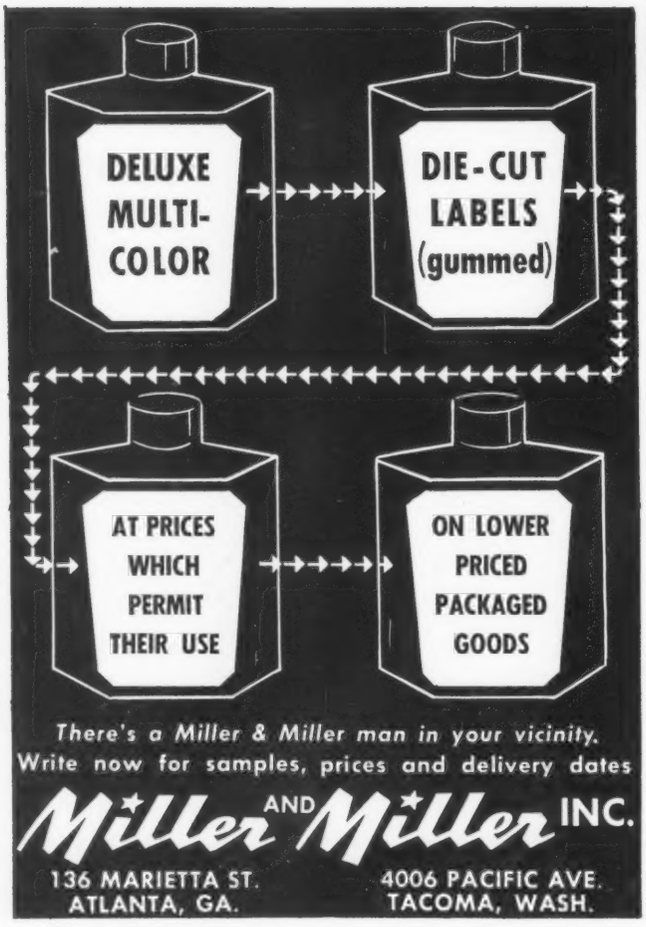
INSECTICIDE AND DEODORANT SPRAYER

For home, hospital and industrial use, where large volume of fine mist is desirable. All plastic, non-corrosive. Made to fit any size bottle or can. New, efficient, durable, inexpensive.

Your inquiry will draw prompt and detailed information about these and other new sales stimulants for your liquid products.

*Reg. U.S. Pat. Off.

Calmar Company
DESIGNERS and MANUFACTURERS
OF FUNCTIONAL CLOSURES FOR THE PACKAGING INDUSTRY
6800 McKINLEY AVENUE, LOS ANGELES 1, CALIFORNIA


DELUXE MULTI-COLOR
DIE-CUT LABELS (gummed)
AT PRICES WHICH PERMIT THEIR USE
ON LOWER PRICED PACKAGED GOODS
There's a Miller & Miller man in your vicinity.
Write now for samples, prices and delivery dates
Miller AND Miller INC.
136 MARIETTA ST. ATLANTA, GA.
4006 PACIFIC AVE. TACOMA, WASH.

Available

CHEMIST

COATINGS • LAMINATIONS • ADHESIVES

New Products
Extreme Temperatures
Packaging - Textiles - Protective Films
Printing Inks - Building Equipment
Metal and Plastic Yarns

Technical director of top-rated rubber and resin coating and combining company in New York. Ideas and administration. Ph. D. Available on reasonable notice.

Box-D 653

For Your Information
(Continued)

the seven types of trucks is illustrated and described in detail. Copies of the catalog, Bulletin P809, may be obtained by writing the company, 4530 Tacony St., Philadelphia.

Booklet P-478 describing the Thwing-Albert electro-hydraulic tensile strength tester has just been published by the **Thwing-Albert Instrument Co.,** Penn St. & Pulaski Ave., Philadelphia. Copies are available on request to the firm.

American Airlines has issued a 16-page booklet, **"A Factual Study of Airfreight,"** which lists the advantages and profit possibilities of shipping by air. Copies may be secured from local sales offices or by writing to C. A. Stevens, Jr., director of sales promotion, American Airlines, 100 E. 42nd St., New York.

Continental Paper Co., Ridgefield Park, N. J., has issued a brochure titled "Share of Production Plan," describing how its labor-management program operates and the benefits it has accomplished.

A new six-page bulletin has been published by the **Elliott Mfg. Co.,** Fresno, Calif., describing and illustrating their end-sealing machines for fibre and corrugated cases. Copies of the bulletin, No. 100, may be obtained by writing to the company.

"The New Marathon Linerless Carton" is the title of a recently published booklet by **Marathon Corp.,** Menasha, Wis., explaining the advantages of this type of package for the ice-cream industry. Copies are available on request to the company.

Principal speaker at the annual meeting of the **Waxed Paper Institute** at the Waldorf-Astoria in New York last month was **Lowell B. Mason,** member of the **Federal Trade Commission.**

Marketing research activities of the U. S. Government are to undergo mass scrutiny by more than 600 practical advertising and marketing researchers at a two-day **American Marketing Assn.** conference at the Hotel Statler, Washington, June 14 and 15. According to **Wroe Alderson,** national president of the association, an "advance investigation of current government research projects of significance to marketing people and major attention to the fast-expanding field of packaging are included in plans for the conference."

An illustrated handbook published by **Monsanto Chemical Co's** Plastic Division details methods of fabricating Fibestos and Vuepak, Monsanto's cellulose acetate materials. Known as Production Information Bulletin No. 50, the brochure may be obtained on request to the company at Springfield, Mass.

To illustrate its program for converting packaging machinery to the use of Pliofilm and recovering the cost, the Pliofilm Department of the Chemical Products Division, **The Goodyear Tire & Rubber Co.,** has produced a sound movie showing a number of machine types successfully converted. Interested packaging-machine operators may obtain prints of the film by writing to Goodyear's Pliofilm Department at Akron, Ohio, or to any of the Pliofilm sales representatives in the field.

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THE FLOYD A. HOLES COMPANY
BEDFORD, OHIO

U.S. Patents Digest

Edited by H. A. Levey

This digest includes each month the more important patents which are of interest to those who are concerned with packaging materials. Copies of patents are available from the U. S. Patent Office, Washington, at 25 cents each in currency, money order or certified check; postage stamps are not accepted.

Cellulose Sheets and Processes for Making Them, E. Czapek, New York, N. Y. U. S. Re: 22,950, Dec. 23. A continuous process of manufacturing cellulose hydrate strips comprising: directly supplying to and supporting on a movable dry surface a copper oxide ammonia cellulose solution, spreading solution so supported while being moved with the supporting surface into a thin layer and pentrating the solution with a medium effectively to coagulate the solution as a thin layer.

Can Collar and Method of Mounting Same, J. Coyle and W. F. Punte (to Continental Can Co., Inc., New York, N. Y.). U. S. 2,433,031, Dec. 23. A collar for a collar can comprising an annular sheet-metal body having an inwardly curled bead at each of its upper and lower edge portions and a plurality of circumferential slits disposed about the body opposite the lower bead and having slits defining edge portions corrugated in a plurality of humps to enable collar-anchoring engagement with a can body.

Beverage Brewing and Vending Machine, I. S. Ime (to Lymean Mfg. Co., Inc., a corporation of Missouri). U. S. 2,433,-054, Dec. 23. In a beverage brewing and vending machine, the combination with a structure having a filling station and a delivery station and a receptacle beneath the delivery station, of a foraminous rotatable drum within and extending above the receptacle, a receiver surrounded by the drum, the drum constituting a conveyor, a structure mounted for intermittent rotation, a transfer container hingedly connected to structure and positioned to tilt downwardly and means for holding a container against tilting movement and then releasing the container.

Method of Producing Sterile Packages, J. N. Masci (to Johnson & Johnson, a corporation of New Jersey). U. S. 2,433,-056, Dec. 23. The method of placing a product to be sterilized in a collapsible tube having an open, flattening end, inserting a fibrous filter material, then subjecting this assembly to heat and pressure to sterilize product, applying clip to folded portion and subjecting same to pressure for hermetically sealing the end.

Container-Sealing Machine, R. M. Mero (to Continental Can Co., Inc., New York, N. Y.). U. S. 2,433,057, Dec. 23. In a container-sealing machine, a sealing chamber, a closure for chamber, a container-supporting element mounted on this chamber independently of the closure and sealing means including a container end chuck, with power means for moving the elements.

Apparatus for Filling Containers with Measured Charges of Material, P. E. Pearson and A. Treff (to Continental Can Co., Inc., New York, N. Y.). U. S. 2,433,061, Dec. 23. A container filler comprising a rotatable turret, a plurality of filling units carried thereby, a table carried by turret and having an opening for each filling unit and a container carrier beneath each opening, each filler unit including a measuring spout in table opening.

Helix-Feed Lipstick Holder, A. S. Mackey (to Scovill Mfg. Co., Waterbury, Conn.). U. S. 2,433,998, Dec. 23. A lipstick holder comprising a holding member, one end portion for supporting a lipstick therein, a tubular casing having opening through one end in which a lipstick is supported and is adapted to be projected, periphery of which member has a helix therein extending throughout the full length, helix having a gripper surface, casing having intermediate its ends an aperture of such dimensions as to expose the gripper surfaces of the helix therethrough for engagement by the digit of a hand in imparting rotary movement.

Rotary Lipstick Holder, A. S. Mackey (to Scovill Mfg. Co., Waterbury, Conn.). U. S. 2,433,999, Dec. 23. A lipstick holder comprising a tubular casing, a lipstick-supporting member mounted in casing, said member having a spiral groove forming a correspondingly spiralled gripper surface extending longitudinally of the member, casing having intermediate its ends an aperture of such dimensions as to expose the gripper surface therethrough for engagement by a digit of the hand in imparting rotary movement.

Self-Closing Container, E. Moen, New York, N. Y. U. S. 2,433,142, Dec. 23. A self-closing container comprising box body which is substantially eliptical in cross section and top cover of which has an open recessed portion with an aperture therein and

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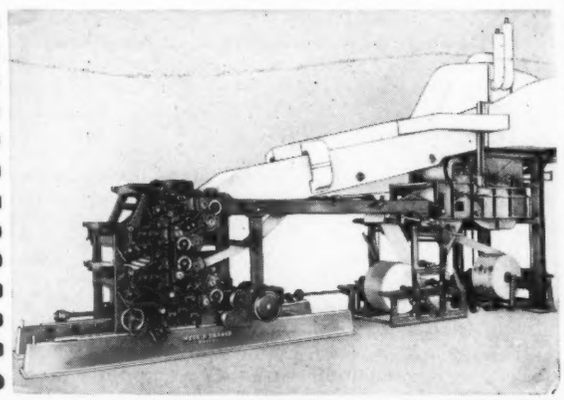

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equipped with a slidably arranged plate in recess portion of top cover adapted to close the aperture.

Sealing Machine, J. N. Van Epps, J. W. Kraus and F. Magyar (to Thompson Products, Inc., Cleveland, Ohio). U. S. 2,433,176, Dec. 23. In a sealing machine a package-supporting table having a heater structure mounted on same which has a long narrow heating surface and comparatively long and narrow pressure-applying structure for cooperating with heater; means for controlling pressure whereby the mouth of a package aligned in front of heating surface will engage with pressure-applying structure and adjustable means for accommodating packages of various sizes and shapes.

Roll Paper Dispensing Container, J. L. Elsman (to Kalamazoo Vegetable Parchment Co., Parchment, Mich.). U. S. 2,433,445, Dec. 30. A dispensing container for paper rolls with front, bottom, rear, top and end walls and a tensioning flap on the swinging edge of the top, journal-supporting plates disposed within said container in engagement with the walls having journal-receiving openings therein, forward edges of supporting plates being recessed to receive tensioning flap and provide stops limiting the downward movement thereof; equipped with a break-out section extending across the juncture of hinge connection for top and tensioning flap to provide an opening for engaging the roll.

Container-Sealing Apparatus, E. M. Enkur, L. F. Pahl and L. L. Lauve (to Crown Cork & Seal Co., Inc., Baltimore, Md.). U. S. 2,433,549, Dec. 30. Made up of an inclined cap chute, stop means to limit the movement of lowermost cap in chute, means to move a container beneath the chute, leveling means carried by and movable with respect to chute to level upon a container a cap withdrawn from chute; means moving with container-moving means to engage a cap withdrawn and to move cap to sealed position upon the container.

Bottle Cap, H. F. Shannon, Richmond, Va. U. S. 2,433,629, Dec. 30. A bottle having a depending corrugated flange included ridges and grooves, finger tab integrally connected to flange, tab having a ridge therein substantially in alignment with one of ridges in flange and an opening in its structure spacing said ridge in said tab from aligned ridge in flange, being bendable so that ridge in tab may engage aligned ridge in flange.

Method of Making Adhesive Film, O. E. Backman, Tammerfors, Finland. U. S. 2,433,680, Dec. 30. The method of making a dry adhesive film from urea-formaldehyde condensation product which comprises impregnating a porous carrier with a mixture of these products, neutralizing with ammonia and applied by heat and pressure for 3 hrs., then dried.

Reclosable Container, J. Coyle (to Continental Can Co., Inc., New York, N. Y.). U. S. 2,433,683, Dec. 30. A container with metal body having an upwardly opening channel surrounding an end and defined by an outer short wall and an inner long wall extending above upper limit of short wall, metal closure having a body portion engageable as a rest stop on inner wall and a downwardly opening channel and equipped with a fibrous band whose upper and lower edge portions are secured in closure and body channels to form a seal between closure and body.

Apparatus for Distending Prefabricated Box Covers and Applying the Same to Filled Boxes, W. F. Linstedt (to Kraft Foods Co., a corporation of Delaware). U. S. 2,433,701, Dec. 30. Apparatus comprising holder for a stack of collapsed paperboard trays, each tray embodying a main panel and side and end walls folded to collapsed position under and substantially parallel to the plane of main panel; means for ejecting lowermost tray from stack automatically, equipped with funnel-like means through which a package may be guided upwardly and means for propelling package through this funnel-like means into distended tray.

Jar Closure Means, S. J. Kaczmarek, Toledo, Ohio. U. S. 2,433,761, Dec. 30. A jar having an open neck with a cylindrical seat edge portion surrounding flange at base, equipped with gasket on flange and cap having a portion telescoping over cylindrical portion and seating on gasket; having clamping means with top portion over cap and depending skirt describing a half circle around peripheral portion of cap and concentric thereto.

Process For Making Container, G. Bardin, Rournus, Saone-et-Loire, France. U. S. 2,433,806, Dec. 30. A process for manufacturing container consisting of placing a relatively flexible flat metal sheet in face-to-face contact with flat portions of a relatively rigid flat metal sheet having a nozzle formed thereon and simultaneously die-shaping the contacting flat portions of the two sheets in one shaping operation to produce from each sheet a dome-shaped structure, two dome-shaped structures being in

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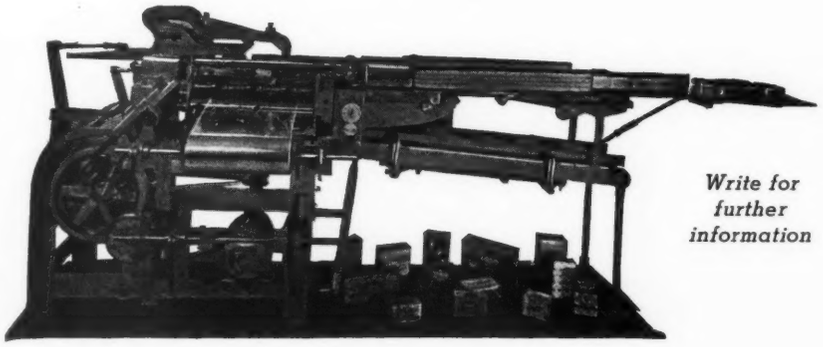

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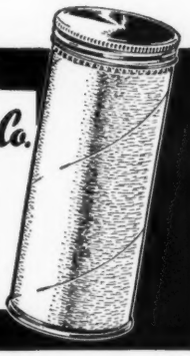

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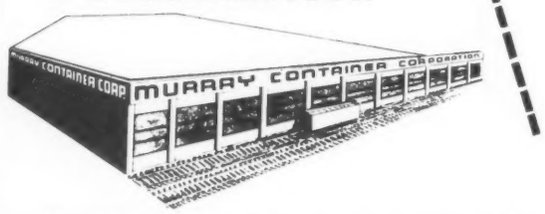

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U.S. Patents Digest
(Continued)

face-to-face contact and adjoining edges of two contacting dome-shaped structures, at least a part of central portions of flexible structure being adapted to be separated from relatively rigid structure to form a container.

Container Handle, J. E. Socke (to American Can Co., New York, N. Y.). U. S. 2,433,870, Jan. 6. A collapsible carrying handle for containers and other articles, comprising a hand-grip element including a substantially flat main central body portion adapted to lie closely against a surface of container when handle is not in use, handle having a relatively thin body portion disposed in plane of top of container.

Removable Bottle-Closure Device, A. W. Anderberg, Los Angeles, Calif. U. S. 2,433,972, Jan. 6. A closure device for bottles provided with a neck portion of circular cross section having outer bead adapted for reception of a closure of the "crown" type, an inner bead spaced from and parallel to outer bead, which comprises: a cap member provided with a resiliently compressible sealing member adapted for engagement with outer surface of outer bead of bottle neck, a depending rim portion adapted to fit over outer bead and having a clamping member.

Container, L. J. Rosenberg (to Gaylord Container Corp., St. Louis, Mo.). U. S. 2,434,014, Jan. 6. A container with body and a cover having a rim portion disposed along outer side of body and a vertical opening adjacent the rim portion; a fastener mounted in body and having an upwardly directed hook located exteriorly, adapted to receive lower portion of rim.

Cap-Feeding Machine, M. S. Resina, Brooklyn, N. Y. U. S. 2,433,053, Jan. 6. In this machine means for transferring a cap from a cap chute to a cap-applying chuck by a rotably mounted arm having a cap-engaging head positioned on the free end of the arm and means for resiliently impelling arm so that cap-engaging head is in the path of cap-applying chuck.

Weighing Apparatus, P. B. Richardson (Richardson Scale Co., Clifton, N. J.). U. S. 2,434,177, Jan. 6. Weighing apparatus comprising, in combination, a weigh receptacle and means for feeding material thereto, weighing mechanism including main and tare beams having means for proportionally balancing the weight of the weigh receptacle and a predetermined residue of material.

Collapsible Pre-formed Package Jacket, B. Y. James, Miami, Okla. U. S. 2,433,994, Jan. 6. A collapsible, pre-formed package jacket comprising an initially flat blank of sheet material having lines of bend and fold for setting up a pair of side walls, a pair of end walls, top wall and bottom wall, top wall of the blank being set up by a continuous single direction line of bend extending entirely across the blank and having a flap projecting from the edge to form a part of one of the side walls when the jacket is in place.

Method of Manufacturing Cast Vinyl Resin Film, Sheeting and the Like, A. J. Seitz (to Wingfoot Corp., Akron, Ohio). U. S. 2,434,231, Jan. 6. The method of manufacturing cast film, sheeting and the like of vinyl-type resin according to a continuous process comprising the steps of depositing a vinyl solution in the form of a film on a moving film-forming surface and partially drying solution to solidify film before removal.

Combined Container and Dispenser, S. Wolfson, Chicago, Ill. U. S. 2,434,238, Jan. 6. A container including a body and a lid hinged on body for rotation about a generally horizontal axis adjacent the top of container body, liquid container mounted on lid for movement therewith, movable ejector member for liquid container and means for moving ejector member to liquid-ejecting position in response to movement of lid, including a camming contact member mounted on container body adjacent the top.

Container, E. Watson (to The Nelson Co., Baltimore, Md.). U. S. 2,434,377, Jan. 13. In a container a side wall consisting of a single section of cylindrical tubing, bottom closure means having a recess receiving the upper portion of the side wall, a plurality of spaced members disposed substantially wholly within the side wall and independent thereof, each member being secured at its opposite ends to said means and the ring, respectively.

Adhesive Label Dispenser, W. H. Brady, Jr., Milwaukee, Wis., and F. W. Brady, Chicago, Ill. U. S. 2,434,545, Jan. 13. In a dispensably mounted pressure-sensitive adhesive label the combination comprising a backing sheet of light paper board, a label sheet coated with a permanently tacky adhesive and adhered to one face of the backing sheet with one edge of the label sheet in inwardly spaced parallel relation to one edge of the backing sheet, said label sheet having a plurality of spaced parallel slits extend-

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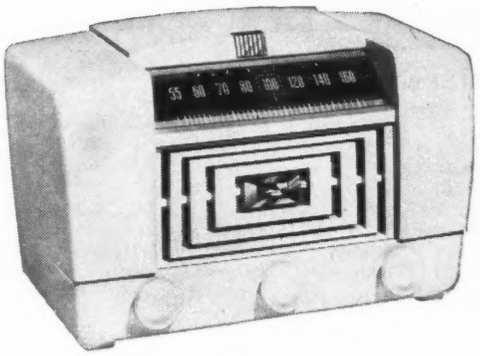

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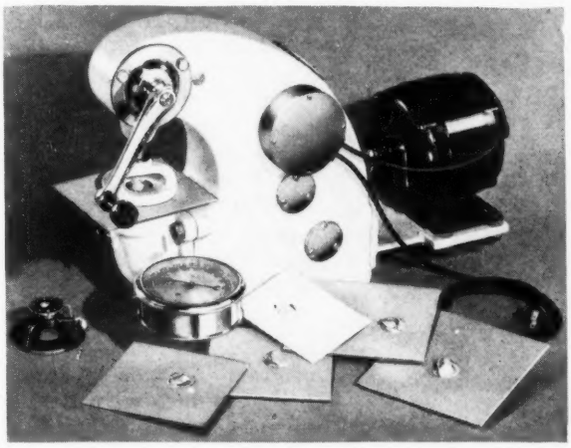

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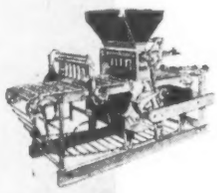
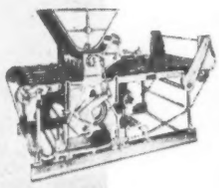


Fillers are straight line with multiple cylinders . . . Designed for **CLEAN CUT OFF FILLING** for products that seek their own level . . . **BOTTOM UP FILLING** for semi-solids . . . No drip . . . Clean Filling . . . Entirely automatic . . . readily adjustable to any size or shape container . . . Maximum production output.



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JAMS	LACQUER
SYRUP	MAYONNAISE
JELLIES	PEANUT BUTTER
CHEESE	APPLE BUTTER
GLUE	VANISHING CREAM
PASTE	MUSTARD AND
GREASE	SIMILAR PRODUCTS

THE FILLER MACHINE CO. INC.

1247 E. MONTGOMERY AVE., PHILA., PA.

U.S. Patents Digest
(Continued)

ing normal to said edge of label sheet and dividing sheet into individual labels.

Paper Feed for Wrapping Machines, W. Hoppe (to National Bread Wrapping Machine Co., Springfield, Mass.). U. S. 2,434,616, Jan. 13. A wrapping machine having a carrier movable between an in-feeding and delivery station, a constantly rotating frictional surfaced web-feed roll located adjacent the path of the carrier and between said stations, a draping roll movable between feed roll and carrier, a mechanism for constraining the draping roll for movement from an initial position adjacent web-feed roll toward in-feeding station as carrier moves away.

Method of Wrapping Round Cakes, W. Hoppe (to National Bread Wrapping Machine Co., Springfield, Mass.). U. S. 2,434,617, Jan. 13. A method of wrapping a round article with a flat top and bottom which comprises folding a heat-sealing wrapper over one flat surface of the article and overlapping its margins on the other flat surface to form an open tube projecting beyond the article at both ends, folding projecting ends of the tube so that folds lie tangential to the round surface of the article and rolling the wrapped article in contact with a heated surface to heat seal the wrapper and cause it to conform closely to the round surface.

Mechanism for Heat Sealing Package Seam Joints, H. O. Irmscher (to National Urn Bag Co., Inc., a corporation of New York). U. S. 2,434,657, Jan. 20. A mechanism comprising base fitting, pair of spring-pressed arms pivotally mounted on fitting for swinging movement to and away from each other, a pair of pressure jaws carried by the arms equipped with heating means.

Reciprocating Closure for Collapsible Tubes with Parallel Guide Flanges, P. D. Malyszko, Portland, Ore. U. S. 2,434,706, Jan. 20. A collapsible tube having an outwardly projecting reduced discharge neck, outer discharge end of neck being provided with a flat closing diaphragm which has a discharge port defining an open-ended channel-like closure and guide tracks for same; an elongated block-like body is disposed in the channel between the guide tracks, its inner surface being in slidable contact with the diaphragm.

Hermetically Sealed Container and Method of Making the Same, L. C. Brooks, Madison, Wis. U. S. 2,434,756, Jan. 20 (one-third assigned to M. Jones, Mequon, Wis.). In a hermetically sealed fibre container, a flat-sided body having sharply defined angular corners; a closure supporting ledge on one end of body, ledge comprising a plurality of adjacent strips extending horizontally along the end, the strips being an integral part of the body side walls and being folded on each other so as to dispose at least perpendicular to the side wall; an inner lining of thin sheet impervious to the material for which container is intended covers all inner surfaces and is adhered to the ledge.

Cap for Containers, N. S. Sodders, Cleveland, Ohio. U. S. 2,434,733, Jan. 20. An improved container cap for a bottle provided with a mouth having an internal seat, comprising a cap with an upwardly converging circumferential wall of resilient material, an integrally formed top wall, upward converging wall having an inverted U-shaped vent notch formed therein which permits expansion in the seat in the mouth of the bottle in which it may be removably mounted to frictionally hold it in position.

Milk-Bottle Cap, H. W. Budan, Los Angeles, Calif. U. S. 2,434,787, Jan. 20. In a cap, a central area surrounded by a circular seat portion, a circular flange extending downwardly from the outer edge of seat portion, two diametrically opposite spring ears having side edges, said ears extending downwardly from flange, at least one of ears having in one of its side edges an acruate recess which produces a hook with a point suited to hooking onto the fingerhold flap of a conventional milk-bottle cap.

Tape Dispenser, P. VanCleef and F. Chonacki (to Johns-Manville Corp., New York, N. Y.). U. S. 2,434,776, Jan. 20. A device adapted for use in dispensing of permanently tacky pressure tape, comprising means for rotatably supporting the roll, a tape-cutting instrument positioned in alignment and spaced relation with roll, equipped with guide roller behind cutting instrument.

Combination Applicator and Line Pressing Container, L. Pachner, Chicago, Ill. U. S. 2,434,861, Jan. 20. A box-like container having an open top and adapted to confine a compound for exposure through the open top, key-hole slots in the end walls of container for passing a line therethrough, with cover removably fitting the open top, a presser glade movably fitting within the cover for pressing a line against the compound, cover being provided with a window and finger-engaging button on the blade.

Check these facts about the RODGERS FILLER

Before you buy new or additional paste and powder filling equipment, you should know that the RODGERS FILLER is the only filling machine with all these special features:

METRONOME TIME CONTROL . . . to set the pace for the operator, to guard against slowdowns.

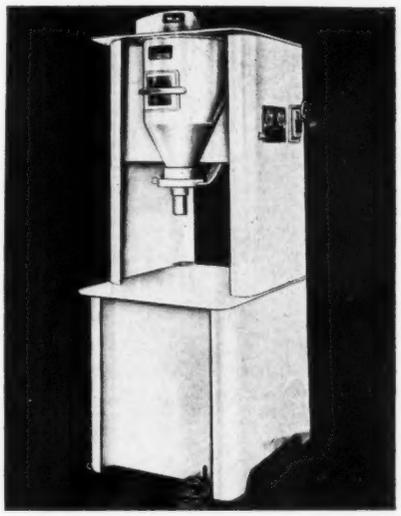
100% DIAL CONTROL FOR CHANGEOVERS . . . You just turn the dials to make the change—no tools, no tinkering, no time-wasting.

CONTROLLED OPERATION . . . Speeds can be set to fill any type of container with charges of ⅓ ounce to 10 pounds, and at rates to suit your specific production line.

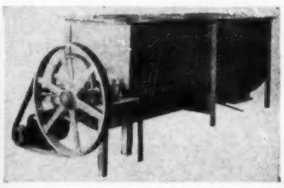
CLOG-PROOF OVERDRIVE . . . Motor and all moving parts located over fill tube. Hence they can't clog with powder or paste. You save maintenance charges, sharply reduce production downtime.

Since its introduction only 18 months ago, the RODGERS FILLER has successfully handled every filling job assigned it — from viscous, heavy pastes, to fine and flaky powders! That's because of its special design and rugged construction.

Write now for your free copy of Bulletin M-3, containing detailed information about this amazing Filler.



GEORGE G. RODGERS COMPANY, INC.
225 WEST 34th STREET, NEW YORK 1, N. Y.
PHONE: BRyant 9-2040



POWDER MIXERS. All steel or stainless steel. Capacities from 300 pounds to 2½ tons. Equipped with motor drives.

OTHER RODGERS PRODUCTS

Stainless Steel Tanks	Conveyors
Stainless Steel Kettles	Tube and Jar Fillers
Tube Clips	Portable Agitators
Tube Closers	Centrifugal Pumps

NEW!

BIG INCH NO. 3 AUTOMATIC PACKAGE SEALER FOR PRESSURE-SENSITIVE TAPE

at a touch of the lever—measures—dispenses—cuts 1½", 2¼" or 3" strips

Here, at last, is a modern, fast, business-like package sealer for handling tacky tape with no mess—no nuisance—no waste! If you use pressure-sensitive cellophane tape for sealing, banding, decorating, attaching, coding — practically any short-strip application—BIG INCH No. 3 is the machine for the job!

Handles cellophane, acetate and light paper pressure-sensitive tapes on 3" cores—roll diameter to 4¾"—widths to 1".

Check these special features:

- An easy, quick pull of the operating lever feeds automatically—measures and cuts desired strips either 1½" or 2¼" or 3" long.
- Measures strip—reduces tape costs.
- Holds measured strips flat, ready for pick-up—no snarling, no mis-sticking.
- One-hand operation leaves other hand free to hold package.
- Encloses tape roll—retards drying out of tape—protects tape against dust, lint, spoilage.
- Simple and convenient to load.
- Sturdy, well-balanced construction—won't creep.
- Streamlined design—compact, goodlooking—takes little counter space.

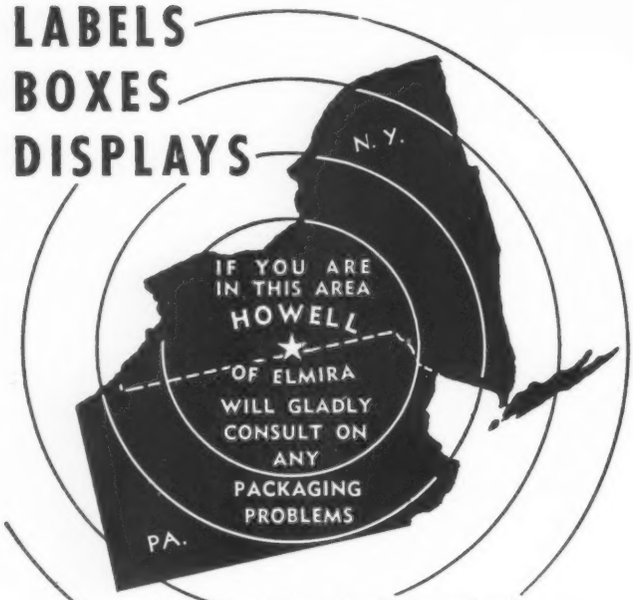
Write today for full details

Better Packages, INC. SHELTON, CONNECTICUT

WORLD'S LARGEST PRODUCERS OF TAPE DISPENSERS AND SHIPMENT-SEALING SYSTEMS

Since 1883

LABELS
BOXES
DISPLAYS



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THEY'LL BUY YOUR SWEETS

TO GET THE BOX!

Here's a guaranteed sales-maker for candies, nuts and other confections. It's a gleaming, all-transparent box that provides maximum mouth-tempting display for tasty morsels. You can use it to package bath salts and powders, too.

But that's not all. It's specially designed for permanent re-use as a de-luxe sewing kit. It has a built-in pincushion . . . a roomy button compartment . . . and individual holders for fourteen spools of thread. Molded of heavy-gauge polystyrene plastic that's odorless, tasteless and non-toxic, this box is built to last.

Write now on your business letterhead for a FREE SAMPLE to use for market testing and during merchandising conferences.

BRIDGES PLASTIC PRODUCTS

1800 East 55th Street Los Angeles 11, California

Alumium foil

(*Continued from page 153*) closure made by folding the end of the bag once or twice and binding with staples. This closure was almost as good and for some purposes would be just as satisfactory as the closure effected by heat sealing.

TABLE V—MOISTURE LOSS FROM BAGS; EFFECT OF CLOSURE
(Bags filled with cellulose sponge, wetted with water containing mold inhibitor. Stored for 2 weeks at 100° F. and 20% relative humidity)

	Average moisture loss—gm. per 24 hrs.	
Description of closure	*Bag No. 6—Aluminum foil, 0.0004 in. laminated with kraft paper (outside) and tissue inside*	*Bag No. 7—Aluminum foil, 0.0004 in. laminated with glassine (outside) and tissue inside*
Open ends folded once—3/8 in. lap and stapled twice	0.12	0.17
Open ends folded twice—3/8 in. lap and stapled twice	0.09	0.14
Open ends heat sealed—seal 1/2 in. wide	0.04	0.08

NOTE: Bag No. 6 extended is 3 by 1 1/2 by 6 1/2 in. Bag No. 7 extended is 3 1/8 by 1 by 6 in.

Thermal characteristics of foil packages

The high reflectivity of aluminum foil for radiant energy is a characteristic which can be taken advantage of in some types of packages. This reflectivity for radiant heat will help maintain a lower temperature of a product wrapped in foil when the package is exposed in bright sunshine or otherwise receives radiant heat. Conditions will vary so much, however, that no quantitative generalization can be made. Foil is, of course, opaque to light and products which are photo-sensitive can be safely wrapped with aluminum foil.

Products which are intended for deep freeze and storage at low temperatures can profitably employ foil in the package structure to minimize the loss of moisture and quality. In Table VI are given data on the rate of cooling of a product in paperboard boxes: plain; with aluminum foil laminated over the inner surface; with foil laminated over the outer surface and with foil sandwiched in between the paper plies from which the box is fashioned. In another test, the rate of freezing in a paperboard box was compared with the rate in an all-aluminum carton. This latter test was carried out in a different freezer and the rate of freezing was somewhat lower with Boxes 5 and 6 than with Boxes 1 to 4. The temperatures at the center of the cartons were measured at short intervals by means of sensitive thermocouples. The boxes were filled with moist navy beans, as a test material. In Table VI are given the times required to reach the successively lower temperatures in

the center of the cartons. These experiments were carried out in a typical home freezer in still air. The conditions and cooling rates are, therefore, not comparable with commercial freezing operations.

TABLE VI—COOLING RATES IN CENTER OF CARTONS*

Type of box	+32° F.	−0° F.	−10° F.
	Time in freezer No. 1		
	Hr.Min.	Hr.Min.	Hr.Min.
No. 1 Paperboard box	1:40	4:30	5:20
No. 2 Paperboard box with aluminum foil laminated over inner surface	1:40	4:20	5:10
No. 3 Paperboard box with aluminum foil laminated over outer surface	1:45	5:10	6:05
No. 4 Paperboard box with aluminum foil sandwiched between 30# kraft paper and the paperboard over inner surface	1:40	4:20	5:15
	Time in freezer No. 2		
No. 5 Paperboard box	2:30	5:05	5:45
No. 6 Aluminum foil carton	2:35	5:08	5:50

* Carton 5 by 4 by 1½ in. over-all dimensions; laminated foil is 0.0005 in. in thickness; foil in all-aluminum carton (No. 6) is 0.0025 in. in thickness.

The tests with the No. 3 carton, which had the aluminum foil on the *outer* surface, show that the low thermal emissivity of the foil retards the rate of heat transfer somewhat. There is little difference in the case of the other cartons, where the foil is on the inside surface or in between the plies. In many cases this retarded cooling rate will make no difference in the actual performance, but where the fastest cooling rate is desired, along with high moisture resistance, the foil should be placed on the inside of the carton. There was no significant difference between the rates of freezing in the paperboard carton and in the all-aluminum carton. Moisture condensed on the inside foil surface and the fact that the package contents are in contact with the foil at many places minimizes any radiation reflection effect on heat transfer.

The third and final article in this series will show, by tests on packaged products, how aluminum foil and foil laminates protect and preserve for the customer's use such a variety of products as foods and drugs, cigarettes and candy, ball bearings and silverware.

References

1. Platenius, H., "Films for Produce—Their Physical Characteristics and Requirements," MODERN PACKAGING *20*, No.2, p. 139 (Oct., 1946).
2. Edwards, J. D., and Strohm, D. B., "Measuring Permeability to Carbon Dioxide and Water Vapor," MODERN PACKAGING *19*, p. 157 (Oct., 1945).

CORRECTION: Due to a typographical error, the Einson-Freeman Co. was referred to on p. 105 of our February issue as a display "photographer." The Einson-Freeman Co. is, of course, well known as a display *lithographer*.

TUBULAR *Paper* PACKAGES

Tubular Paper Packages have very wide use under present post-war conditions. They are sturdy, lightweight, and can be attractively decorated in a wide range of colors.

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EMBOSSES TRADE-MARK OR NAME RIGHT IN THE SEAL

Lend prestige to your package . . . individualize your product! No extra time . . . no extra labor . . . no extra material required. Name or trade mark can be embossed while bag is heat sealed in one simple operation! One of many exclusive features available with Heat Seal-It Equipment.

Automatic and Foot Power Heat Sealers; Rotary Heat Sealers; Hand Sealing Irons; Bag Making Machines

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said one of our customers

Try Weinman Transparent Plastic Containers during 1948 and see *your* volume increase!

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CLEVELAND
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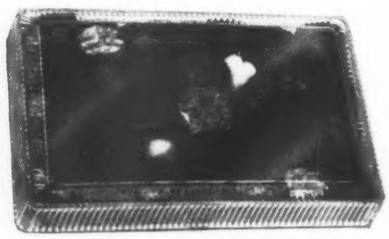


• NEW MOULDED PLASTIC BOX

WEINMAN BROTHERS, INC.
MANUFACTURERS SINCE 1919
325 N. WELLS ST., CHICAGO, IO.

Polyethylene closures

(*Continued from page 106*) "high concentrations" of some types of essential oils and other aromatics.

One of the best recommendations for the polyethylene closure is that it is not being pushed recklessly into untried applications. The molders, for instance, do not recommend that a polyethylene cap be used in conjunction with a polyethylene bottle, because it does not appear to make the proper type of seal. The cap is not being pushed too strongly in the liquor field, until complete experience is available. Although it appears that it will handle practically any type of chemical, each formula is considered a separate problem and tests are made before a polyethylene closure is recommended. Threaded closures of conventional design are now being used successfully on several acid products by the Octagon Process Co., Brooklyn.

With the sound start that has been made, the future of the polyethylene closure is most promising. Producers of the resin are continuously refining it and according to the latest information there is strong hope of changing two of the material's qualities which in some cases might be drawbacks: its dull surface and its lack of complete transparency. Both Bakelite and Du Pont are reported to be working on a modified polyethylene resin which will make it possible to mold items that can truly be classified as "glossy," while all observers agree that producing complete clarity in molded and sheet polyethylene is only a matter of time.

CREDITS: **Fig. 1**—*Closures, Lumelite Corp., Pawling, N. Y.; vials, Plastic Mfrs. Co., Inc., Stamford, Conn.; cartons, Gardner-Richardson Co., Middletown, Ohio.* **Fig. 2**—*All closures, Lumelite Corp.* **Fig. 3**—*Applicator, Anchor Brush Co., Inc., Aurora, Ill. (shaft molded by Lakone Co., Aurora, Ill.).* **Fig. 4**—*Bottle-neck inserts, Formold Plastics, Inc., Chicago; closure (polystyrene), Gits Molding Corp., Chicago.* **Figs. 5 & 7**—*Closures, Lumelite Corp.* **Fig. 6**—*Closures and "Opticlear" vials, Kimble Glass Division, Owens-Illinois Glass Co., Toledo, Ohio.* **Fig. 8** (*left*)—*Closure, Formold Plastics.*

Tree-ripened peaches

(*Continued from page 124*) shipments of fancy fruit in the hard-ripe stage if two layers of cells were provided.

Improvements to the *spartan box* could be made by providing for ventilation and by use of a soft liner on top of the package to protect the top layer. Firm-ripe fruit can hardly be shipped in the spartan box without some injury to peaches on the bottom layer due to weight of peaches above. If this package were equipped with layers of cells, some improvement in carrying ability might be realized, but such improvement might prove expensive.

Prices received for peaches

Price statistics were obtained daily for peaches shipped in the experiment and for those shipped by the grower in ordinary packages. Prices for the cell-type

package and for the spartan box usually were much better than for the ordinary pack.

Comparisons were also made with general price quotations on the New York wholesale market. Prices for the cell-type package, with the exception of the first two days of the experiment, either topped or were at the top of the New York wholesale market. Such comparisons are particularly impressive, since this container held less than $^3/_4$ of a bushel and prices for it were compared with bushel quotations. On a per-pound basis, prices were highest for the cell-type container.

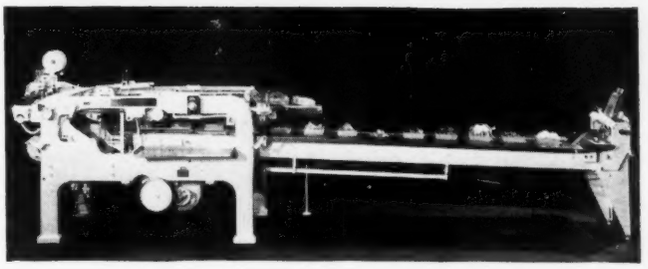
How many packages the market will absorb at top prices is unknown. Proper outlets have to be developed and a good educational and promotional program set in motion if large-scale shipments throughout the season are undertaken.

Prices received for peaches in the spartan box were also good, usually topping prices for bushel packs and keeping fairly well in line with prices paid for the cell-type container. However, the spartan box contains over a bushel of peaches and favorable prices received undoubtedly were in part due to larger quantities in the package. Prices for the flat half-bushel were lower than for other packages in the study. However, this in part can be attributed to the smaller measure contained in this box. Other factors contributing to relatively unfavorable prices for the flat half-bushel were poorer quality of the peaches, due to bruising, and lack of attractiveness of fruit in this container.

Conclusions

1. Firm tree-ripened peaches can be shipped successfully from South Jersey to New York and other markets if properly handled and packaged.
2. The cell-type container proved best in this experiment for shipping ripe peaches. Packages with larger cells for peaches over $2^1/_2$ in. in size are needed.
3. If recommendations for improvement are followed, the cell-type package undoubtedly will carry firm-ripe peaches with least loss.
4. The spartan box was popular with the trade, but permitted too much bruising. This package probably will be well received if used for shipping ordinary peaches.
5. The flat half-bushel box, in its present form, is not satisfactory for shipping firm-ripe fruit.
6. Only peaches of the proper variety and in firm-ripe condition should be included in this program. If past firm-ripe stage, or if variety is one that will not stand up, loss may be high. If immature, fruit does not look well and does not belong in a fancy package. Some buyers felt that a $2^1/_4$-in. peach was too small for a fancy, tree-ripened pack.
7. Prices for the small shipments of tree-ripened peaches topped the market. Further research is needed, however, to ascertain how many peaches of this quality the market will absorb at favorable prices.
8. Studies should be made to obtain figures on costs versus returns in using special packages and in shipping tree-ripened versus ordinary peaches.

See "OLIVER" for the latest in automatic wrapping and labelling



● "Oliver" Automatic Wrapping Machines—made in seven different size ranges—wrap cartons, trays, odd-shaped items on U-boards or flat cards, using almost any type heat-sealing material. U-boards and cards are automatically fed and folded. A complete change for package size can be made in less than two minutes. Wrapper length can be adjusted with the machine in motion. Photo-electric registration of printed wrappers. *A girl can operate the "Oliver."*

17th AMA PACKAGING EXPOSITION APRIL 26-30, 1948 CLEVELAND AUDITORIUM American Management Association

● The revolutionary "Oliver" Automatic Roll-Type Thermoplastic Labelling System uses colorful diecut labels in a continuous roll. Essential information—title, price, quantity, code—can be imprinted on the label just before it is heat-sealed to the wrapper. Rolls of diecut labels (printed by Oliver) are inexpensive, and easy to change. *Get all the facts!*

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WITH "OLIVER" AUTOMATIC ROLL-TYPE LABELLING SYSTEM

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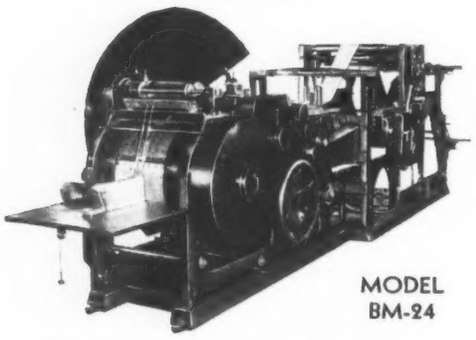
MANHASSET
BAG MACHINES



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1. Quality Bags up to 1200 per minute.
2. A patented method of greater production with slower machine speeds.
3. Bag widths 1½" to 12¼" — lengths 5" to 19½".
4. Especially suitable for plain, foil or preprinted flat or square bags.

We also manufacture
Presses, Slitters and Rewinders

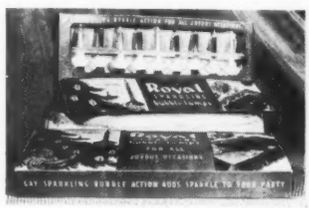
MANHASSET MACHINE CO.
255 EAST 2ND STREET P. O. BOX 231
MINEOLA, N. Y.

"5 & 10" packaging awards

Five awards and 14 honorable mentions have been announced in the 5-cent to $1 Packaging Contest sponsored by the *Syndicate Store Merchandiser*, business magazine of the variety-store trade. Merchandise ranged from lollipops and balloons to knitting needles and mop heads in this competition, held annually since 1934 and confined to popular-priced items sold in the nation's 20,000 "five and tens." Packages were judged on their "sell appeal" performed in a minimum of package bulk, their sturdiness to stand up under constant shopper handling in the open-display counters of the dime store and economy of production.

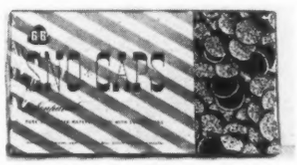
Judges were R. L. Waterman, vice president in charge of merchandising for the 486-store W. T. Grant Co.; M. H. Goldman, vice president and merchandise manager for the 114 stores of Neisner Bros.,

Winners in the toy (left) and toiletries (right) groups.



Judged best in household (left) and the notions classes.

The "Sno-Caps" gift box of candy received award for novelties and miscellaneous.



Inc., and Egmont Arens, package-design consultant. Awards in five classifications were as follows:

Toiletries—AWARD: "Yes" tissues, manufactured by the Personal Products Corp.; designers, N. W. Ayer & Sons, Inc., New York. (See MODERN PACKAGING, Sept., 1947, p. 126.) HONORABLE MENTIONS: Gem Jr. Razor set, product of American Safety Razor Corp.; designer, H. Schillinger. Marchand's "Make-Up" hair rinse, manufactured by Charles Marchand Co.; designer, David Hills.

Stationery, Games, Toys—AWARD: Book O'Balloons, product of the Oak Rubber Co.; designer, Richard B. Krupp. HONORABLE MENTIONS: Rubber Tool Kit, manufactured by Auburn Rubber Corp.; designer, Stanley Ruf. Children's Brush & Vanity Set, produced by The Richards Co.; designer, Spencer Graphic Co.

Hardware and Household—AWARD: Royal Sparkling Bubble Lamp Outfit, a tree-trimming set, manufactured by the Royal Electric Co., Inc. HONORABLE MEN-

TIONS: "Glow-Cord," product of A. G. Busch & Co., Inc.; designers, Jack A. Burns and A. G. Busch. Wall Placque Switch Plates, manufactured by Jackson & Co.; designer, Robert Sidney Dickens. "Plastimitts," produced and designed by the Clarvan Corp. Mop Head, manufactured and designed by the Malden Mop & Brush Co. Plastic Spring Clothespins, supplied by Vermont Plastics, Inc.; designer, Sample-Durick.

Notions—AWARD: Wright's Rufflings container, manufactured by Wm. E. Wright & Sons Co.; designer, John T. Wright. (See MODERN PACKAGING, Dec., 1947, p. 139.) HONORABLE MENTIONS: "Braidettes," produced by the C. R. Products Co.; designer, C. K. Richardson. "Rula-Needle" knitting needles, manufactured and designed by Hall Products Co. Hiawatha Elastic Sewing Thread, supplied by David Traum Co., Inc.; designer, T. McKinley.

Novelties and Miscellaneous—AWARD: "Sno-Caps" Nonpareils, a 1-lb. gift box of candy, made by Blumenthal Bros.; designer, Martin Ullman. HONORABLE MENTIONS: Daisy Pops, manufactured by the Banner Products Co. Lucy Ellen chocolate almond candy bars, made by Community Industries; designer, Imperial Box Co.

Award-winning packages and all entries to the 5-cent to $1 Packaging Contest were on display at the 1948 Variety Merchandising Clinic held February 26 at the Hotel Pennsylvania, New York.

New Cry-O-Vac

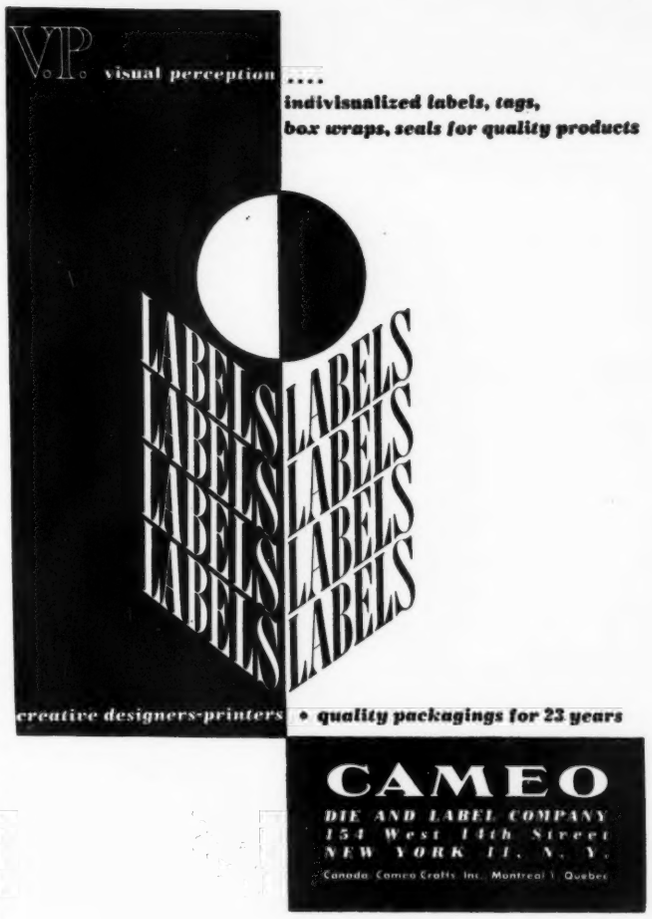
(*Continued from page 119*) with particular research in methods to prevent discoloration. There are also possibilities for the use of the specially formulated bags in frozen fruit and vegetable packaging to replace the latex materials used in this field before the war.

Another development interrupted by the war was the use of the former latex vacuumized package for the shipment of frozen Australian lambs to England, which are said to have shown outstanding results in eliminating weight losses and maintaining color and bloom. This experiment may be resumed, using the new film and the improved method.

Outside the food field, vacuumized packaging of this type, because of its resistance to water-vapor transmission, should have application in packaging for preventing the corrosion of metal parts. For such use, however, the objects to be packaged would have to be placed in trays or other receptacles to prevent sharp edges from puncturing the film during the vacuumizing and shrinking operations.

In fact, the method has possibilities in thousands of cases where an air-tight, moisture-free, flexible package is required.

CREDIT: *Film, bags, equipment and procedure for filling, vacuumizing, heat sealing and shrinking the package are developments of Dewey & Almy Chemical Co., Cambridge, Mass.*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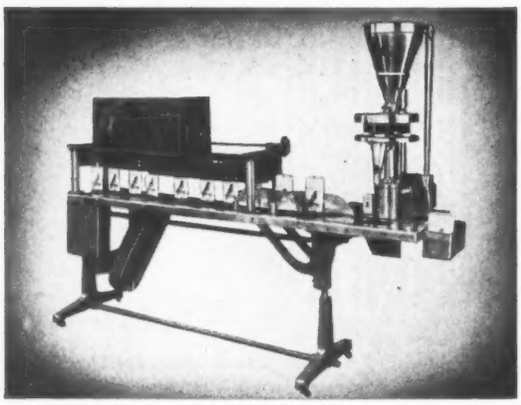
We also design and engineer efficient packaging systems and design and build special machinery for special packaging needs.

If you need *any* kind of help in setting up or modifying a packaging operation, we'd like to consult with you.



This compact filling and sealing set-up for coffee bags is low in cost, easy to operate. Speeds of 35 to 40 bags per minute with one unskilled operator.

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Heat-sealable · For All Types of Protective Packaging · Resistant to Moisture-Vapor, Grease, Liquids, Alkalis, Acids, etc.

KASTEK* PE

Cast **polyethylene** films, .0005"—.004", supported on any industrial paper. Widths up to 60". First large-scale successful bonding of polyethylene to industrial papers.

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Cast **vinyl** films, .0005"—.004", supported on any industrial paper. Widths up to 60". Provides excellent abrasion and grease resistance.

These new KASTEK packaging materials are produced to specifications on any paper 30# or more in basic weight. Investigate this development in protective packaging today!

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MANUFACTURERS OF SUPPORTED AND UNSUPPORTED CAST THERMOPLASTIC-RESIN FILMS. Factory: Plainfield, Conn.

AMA show opens April 26

Final preparations are now being made for the 17th annual Packaging Exposition and Conference sponsored by the American Management Assn., which will be held April 26 to 30, at the Public Auditorium in Cleveland. At last report, there were 170 exhibitors signed up and the final number is expected to go over 200, occupying about 100,000 sq. ft. of floor space. Because of the Midwest location—for the first time in four years—attendance at the Exposition is expected to exceed the record 16,000 at last year's shown in Philadelphia. The Conference committee is preparing for a registration in excess of last year's 1,250. The Conference program and additional details will appear as usual in the April issue of MODERN PACKAGING.

The Packaging Council of the American Management Assn., with 22 members representing both producers and users of packaging, has decided upon cost cutting and merchandising appeal as the keynote of this year's Conference, which will cover both industrial and consumer packaging. Reduced costs without a reduction in packaging standards are necessary, the Council agreed, to meet increasing competition. They can be achieved, according to the Council, by new applications and better management of existing techniques and development of new methods which simplify production, facilitate physical handling during distribution, increase sales appeal through appearance and improve merchandising.

According to E. A. Throckmorton, Jr., president of Container Laboratories, Inc., and AMA vice president for packaging, discussions at the conference will stress new uses of glass, metals, paper, paperboard and wood for packing and shipping products of all types and sizes. They will also emphasize improved warehousing methods and techniques, packaging of perishable agricultural products, effective and economical methods of printing, the maintenance of packaging machinery, simplification of packaging specifications, interior packaging, heat-seal labeling and the prevention of damage in transit.

In conjunction with the Exposition and Conference, two additional meetings of packaging groups have been scheduled. The Packaging Machinery Mfrs. Institute will have a business meeting and dinner at the Hotel Statler on April 26. A joint meeting of the Technical Committee and the Standards and Practices Committee of the Packaging Institute will be held at luncheon April 28 at the Hotel Cleveland, under the direction of Robert de S. Couch of General Foods, chairman of the Technical Committee, and Herbert T. Holbrook of Standard Cap & Seal Corp., chairman of the Standards and Practices Committee. Tickets for the latter event, which will be open to all persons interested in the technical phases of packaging, are on advance sale at the Packaging Institute, 342 Madison Ave., New York 17, at $3 each.

As usual, the Exposition (*Continued on page 197*)

KIDDER POINTERS

No. 17.

Observations of trends and indications in packaging... noted by the manufacturers of Kidder "3 Point" Presses, Kidder Press Company, Inc., Dover, N. H.

Latest comer to the field of pre-sealed textile products is the B. Altman Company's cylindrical hosiery package made from .003 gauge acetate. Some think this may be prelude to automatic dispensing of hosiery and similar products from machines. Altman thinks selling from sample may be part of the answer to the 8% loss between mill and consumer due to snagging and other damage incident to packaging, displaying and handling for selling.

Among the things women would like packages to do are: provide for sanitary storage of unused portion of the product . . . open and close easily . . . be sturdy enough to protect food until it is completely used . . . be convenient to store on standard sized shelves . . . allow visual inspection before buying.

A leading men's toiletries house has come out with unbreakable (plastic) bottles for its products. Bottles resemble its traditional containers but can be bounced or bent without harm.

Delicatessen items . . . one of the last holdouts from pre-packaging . . . are now available in Chicago. Individual servings of salads and desserts are packaged in colorful windowed cartons.

The amount of paper used in packaging in 1947 was greater than the total amount of paper used for all purposes including book publishing and newsprint in 1934.

Turkeys are now being marketed in cartons made of silver corrugated liner printed in bright blue inks. Besides protection, the colorful cartons do a good merchandising job. Space is provided for price, weight, dealers or brand name. Three sizes are made: for turkeys under 12 lbs.; 12–17 lbs.; and 17–25 lbs.

Porez Resin 607 — a melamine formaldehyde, imparts great wet strength to packaging papers. Makers claim to be able to impart the exact amount of wet strength desired by the user to fit his specific application.

Reasons assessed for the rise of packaged goods over the last 40 years in comparison to the decline in bulk sales to the consumer were given as: packages are cheaper to handle and retail . . . brand identification gives assurance of quality . . . good mechanical characteristics are assured . . . and packaged goods are more economical for the consumer.

Vuepak — a transparent plastic by Monsanto, said to enhance eye-interest and to bring out texture and color in many types of products is now available. The material is tough, rigid, economically drawn, shaped or folded into any shape by inexpensive dies. It can be embossed, stapled, printed, cemented or combined with other materials.

Elimination of freezer burn, retention of moisture, flavor and weight are said to result from the use of light gauge aluminum foil for wrapping poultry.

"Rayonese" a new, low cost non-woven rayon fabric in three different types is being offered for box coverings, liners, ribbons, etc. Gives color and texture to packages.

Cell-O-Sealer a new device for sealing cellophane packages is said to increase sealing speeds up to 100% over hand methods. It is adjustable for many styles and sizes of packages.

Enough faulty packaging to make the difference between profit and loss in many companies takes place every day in America. "If packaging losses can be cut from a high of 3% to a low of 1% enough money can be saved to pay for the entire cost of re-packaging the product as well as to considerably increase company profits," says Joseph F. Shadgen, New York industrial packaging consultant.

KIDDER PRESS COMPANY, INC., ***Printing Machinery,*** **Dover, N. H.**

WRAPPER ACHIEVEMENT OF THE MONTH

Weston's . . . one of the nation's top manufacturers of quality cookies, here emphasizes the quality of its products by its tasteful choice of simple colors and simple design for its prepackaged goods.

Use of the finest inks in white, yellow, green, brown, red and red plaid . . . impressed on Cellophane by a Kidder "Cello-Printer" at a speed of 275' per minute, the clarity of the carefully chosen colors and the clean-cut appearance of the well-proportioned letters stamp this work as truly high-quality printing.

For an impressive rendering of these Weston's "pre-packs", Kidder salutes:

HIGHLAND SUPPLY CORP.
HIGHLAND, ILLINOIS

"PRINTING MAKES THE PRODUCT"

At the point of sale, the appearance of wrappers or containers often determines whether the cash register rings or remains silent. This is particularly true of "impulse buying", where package attractiveness is a strong factor. Clear, clean-cut printing bespeaks quality . . . helps to move merchandise on its own merits . . . without a salesman's efforts.

Kidder Presses execute superb printing because they are designed to combine the three essentials of good printing: *Control over the paper, proper distribution of ink* and *accuracy of the impression.*

These things are yours in:

The two new Kidder designs of MULTI-COLOR INTERCHANGEABLE CYLINDER OIL INK PRESSES . . . for metal or rubber plates.

KIDDER ANILINE-TYPE PRESSES —the famous Aniliners—for high-speed — high-quality runs . . . including the narrow "Cello-Printer", primarily for Cellophane.

CONTROL OVER THE PAPER

PROPER DISTRIBUTION OF INK

ACCURACY OF THE IMPRESSION

KIDDER
THREE POINT
PRESS

KIDDER

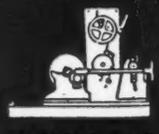
Manufacturer of "3 Point" Presses—so-called because they fulfill the three major requirements for perfect printing.

MULTI-COLOR LETTER PRESSES

for waxed paper, box wrappers, etc., rewound or sheet-delivered — up to 72 inches in width.

"ANILINER" and "CELLOPRINTER" MULTI-COLOR PRESSES

with gravure units — for decorative papers, cellophane, glassine, etc., — up to 65 inches in width.



SLITTERS AND REWINDERS

for paper mills, finishing rooms, and converting plants — up to 115 inches in width.

(*Continued from page 194*) and Conference will be open to both members and non-members of AMA. Admission to the Exposition is free to all members of the trade, and non-members will be admitted to Conference sessions upon payment of a registration fee.

A Housing Bureau has been set up in Cleveland to accommodate those who have not already made their own hotel arrangements. Hotel reservations can be secured by addressing the Housing Bureau, AMA Packaging Exposition, 511 Terminal Tower, Cleveland.

The program for the five-day event has been arranged so that there will be no conflict of hours between the Exposition and Conference. The Conference sessions will be held during the morning hours only on the first four days, Monday through Thursday, and the Exposition doors on those days will not open until noon. On Friday the Exposition hours will be 10 A. M. to 3 P. M. There will be one evening session of the Exposition, on Wednesday.

This is the first of two packaging shows scheduled for 1948. On Aug. 10 to 13 there will be a Western Packaging Exposition in San Francisco. Although not sponsored by AMA, the Western show is under the same commercial management, Clapp & Poliak, Inc.

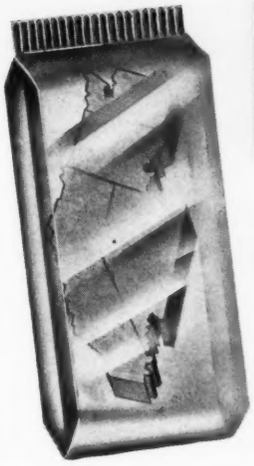
Simplified procedure

(*Continued from page 139*) the only benefits derived from the new Victor packaging program. Also on the credit side are the reduction of packing time through the elimination of gummed tape, abandonment of gummed labels and the department fomerly required to maintain label inventories, and economies effected at the point of sale through uniformity of package size and easier identification of product. Finally, the new program eliminates dies for boxmaking and obviates storage, which together with the space saved in abandonment of the box-making and printing plant affords an additional 50,000 sq. ft. of space for manufacturing operations, together with an attendant saving in labor.

Starting with the Armstrong-Victor line, the redesigned packages will gradually be extended to other divisions as rapidly as conditions permit. The basic package design, prominently featuring the words "Victor" and "Gaskets" on the larger surfaces of the package, will be carried throughout in blue imprinted on yellow kraft. Different colored inks will be used to imprint the variable data for ready identification of the various lines of gaskets in our own stockrooms and on the dealers' shelves.

From our experience we can say that in simplification of manufacturing facilities alone—not to mention the merchandising impact of modernly designed packages—it pays to re-survey packaging procedures.

CREDITS: *Package design and complete packaging program, T. Barry Hodge, Chicago. Envelopes, inserts and folding boxes, Lindley Box & Paper Co., Marion, Ind. Machine for imprinting packages, Markem Machine Co., Keene, N. H.*



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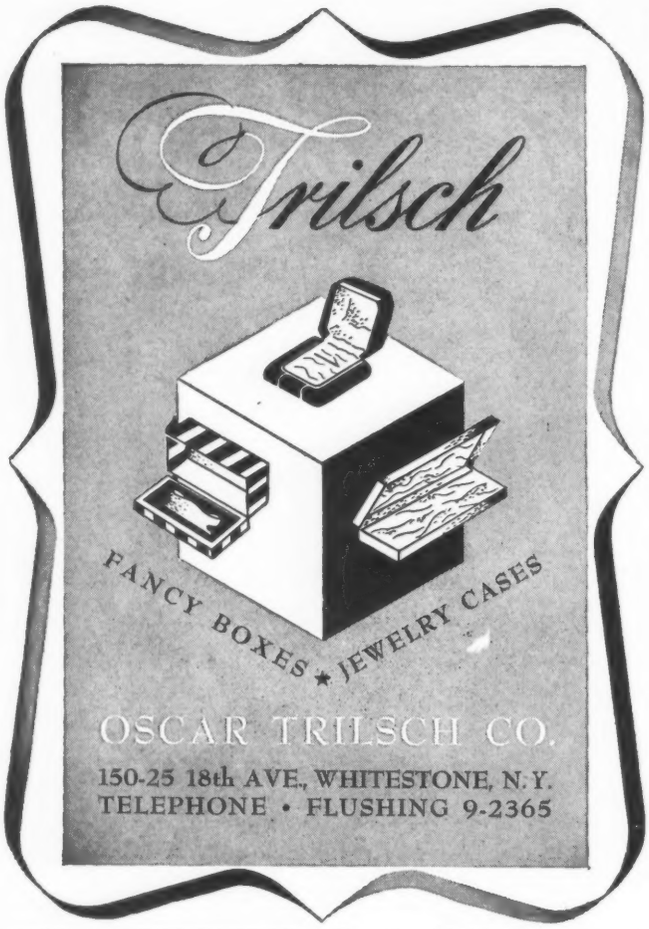

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Pre-packaging pays, survey says

Increases in sales as a result of pre-packaging of perishable foods have been noted by 97.6% of the firms reporting in the second survey on the subject made by *Food Field Reporter*, New York.

Questionnaires were returned by 47 firms now conducting pre-packaging operations. Another 10 firms answered, but stated that it was too early for them to report with accuracy their findings on the subject.

Of 17 growers and packers replying to the question on increased sales, 14 reported a rise and three said they didn't know. Eleven wholesalers found sales better, one found that sales did not increase and one did not know. Sixteen chain and supermarket operators found sales higher.

When asked how much packaging has raised sales of pre-packaged products, four growers said 10% or more, 10 said it is too early to tell. One wholesaler said sales were up 150%, two said up 33 to 50%, three said up as much as 10% and five said too early to tell. One chain said sales were up 64%, six said 10 to 20% and eight did not know yet.

Thirty-five said the extra cost of pre-packaging has been made up by sales and profits, five said it had not and six didn't know.

When it came to figuring how much extra profit pre-packaging is responsible for, many were not able to answer. Among those who did reply were included: one grower reporting sales up 10%, profits up 10%; one wholesaler reporting a 100% profit increase with sales up 40%; a wholesaler with a 5% profit increase and 33% sales increase; one wholesaler whose profits are up 200%, with a sales increase of 150%. Four out of nine reported profit increases as high or higher than sales increases.

Thirteen growers and packers merchandise their pre-packaged line under their own brand name; one does not. Eleven wholesalers use their own brand name and two do not. Nine chains have their own brands, while seven do not.

Seven of the firms replying said they distribute their pre-packaged products nationally, 17 are sectional and 21 are local operations.

The consensus was that transparency in the package is necessary for such items as beans, carrots, cauliflower, lettuce, salad greens, tomatoes apples, grapes, peas, peaches, pears, fresh meat, fish, rhubarb, dried fruits and sausage.

Transparent film is shown to be the material most widely used in all phases of pre-packaging. Thirty-one out of 47 growers, wholesalers and retailers said they purchased transparent films. Cartons were used mainly by growers and wholesalers; very little by retailers. On the other hand, retailers are the largest users of trays.

Transparency, they believe, is not necessary for onions, potatoes, sweet potatoes, oranges, grapefruit, luncheon meats or cheese.

Of growers and packers responding to the question of

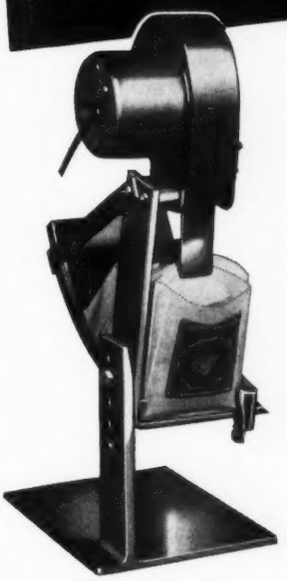
what equipment and supplies generally are needed to make pre-packaging more advantageous, three suggested weighing and filling machines for pre-packaging purposes; two suggested bagging machines for mesh bags; one suggested automatic wrappers and sealers, while another suggested heat sealers. Eight had no suggestions to offer. Of the food and produce wholesalers, one proposed weighing and filling machines for leafy vegetables; another, refrigerators; a third, bag sealers. Eight of the wholesalers had no definite suggestions. So far as chains and super markets are concerned, three suggested wrapping machines; two, stock containers; one, moistureproof cellophane; one, cellophane precut to size for retail use; one, air-conditioning equipment; one, automatic slicing machines for pre-packaging purposes; one, special wrapping tables; one, conveyor-belt systems; one, heat sealers; one, simple automatic or semi-automatic equipment which is not too expensive. Seven in this group had no specific suggestions for equipment.

Packaging equipment being used includes staplers, heat sealers, filling machines, wrapping machines, bag-making machines and scales.

To the question "How do you rate the following package types and packaging materials for use in pre-packaging?" responses made by those answering were as follows:

		17 growers and packers	*12 food and produce wholesalers*	*18 chains and super-markets*	*Total mentions*
Bags, transparent	Good	8	12	11	32
	Fair	2	0	3	5
	Bad	0	0	1	1
Bags, non-transparent	Good	5	5	5	15
	Fair	0	1	3	4
	Bad	2	4	6	12
Cartons, folding	Good	7	5	2	14
	Fair	0	1	5	6
	Bad	2	2	7	11
Cartons, window	Good	2	5	6	13
	Fair	4	0	3	7
	Bad	1	1	2	4
Trays, food	Good	5	5	12	22
	Fair	0	1	2	3
	Bad	1	0	0	1
Transparent acetate sheeting	Good	9	4	10	23
	Fair	2	2	0	4
	Bad	0	0	0	0
Metallic foil	Good	2	0	1	3
	Fair	0	1	1	2
	Bad	1	1	4	6
Waxed papers	Good	2	1	1	4
	Fair	0	0	2	2
	Bad	1	1	4	6
Parchment papers	Good	3	0	2	5
	Fair	0	1	2	3
	Bad	1	1	4	6
Cellulose tape	Good	2	3	4	9
	Fair	0	0	4	4
	Bad	0	0	1	1

FASTER PACKAGING WITH THIS PORTABLE BAGGER



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LOW IN COST

Designed to handle bagged products with a minimum of effort at a maximum speed. Simple adjustments for height... tilting forward or backward enables operator to set machine at easiest position. Stainless steel trough with capacity of 200 bags. Adjustable to bag sizes. Blower keeps bag clean and free from foreign matter.

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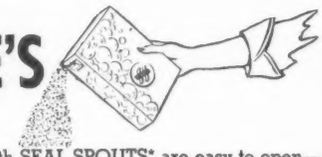
"CUSTOMERS ARE ALWAYS RIGHT"
—when they prefer packages with
POURING SPOUTS

HERE'S  WHY

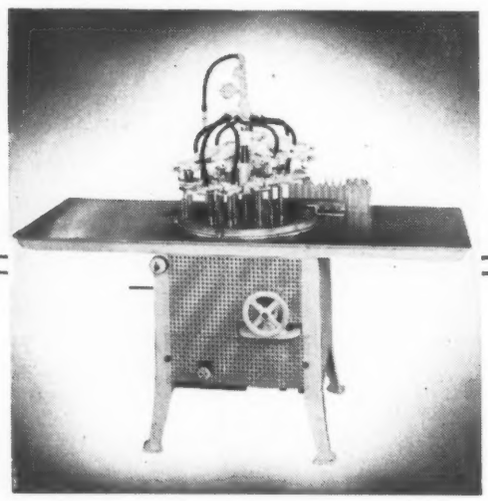
Packages with SEAL-SPOUTS* are easy to open—easy to pour out granular contents—easy to close after using. To the housewife this means no messy, torn box tops, neater storage on pantry shelves, less product waste in the kitchen. Yes, housewives are practical in their work.

Because packages with SEAL-SPOUTS are always tightly closed when not in use, granular products keep fresh, dry and clean longer. SEAL-SPOUTS give added protection against insects, dust and moisture. SEAL-SPOUT packages in use cut down kitchen waste. A teaspoon or cupful can be measured out with less spillage.

If you package free flowing granular products, use SEAL-SPOUTS and you'll have a merchandising "edge" on competing brands. SEAL-SPOUTS are automatically inserted in your own production line—without making a hole in the carton. The process is simple and speedy. Send us one of your packages and we will put a SEAL-SPOUT in it.

*T.M. Reg. U.S. Pat. Off.

SEAL-SPOUT CORPORATION
363 Jelliff Ave., Newark 8, N. J.



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An automatic ampul and tube sealing machine which provides superior sealing at a rate vastly exceeding that of hand production. It employs the proper technique for a perfect and full seal. Ampuls ranging from 1 cc through 20 cc are sealed at rates up to 4000 per hour. The AMPSEAL can be prepared to handle all types of ampuls in the above mentioned size range. *Write for literature on the Ampseal and our filling and washing equipment.*

PerfeKtum
PRODUCTS COMPANY
Established 1922
300 Fourth Ave. New York 10, N. Y.

Purchasing agents' report

The initial 1948 reports from members of the Container Committee of the National Assn. of Purchasing Agents indicate a strong continued demand for steel containers, both light and heavy gauge; textile bags, both cotton and burlap, whereas containers made of paper, wood and glass are definitely in the buyer's-market classification.

No facts are apparent now to indicate that steel containers will satisfy the demand for early 1948. It will be very difficult for purchasing agents to secure special sizes or new designs. Can prices under contract will hold for 1948, but steel drums, pails, buckets, etc., will directly reflect any increased cost of labor, transporation and fuel.

At this time, considered opinion in the N.A.P.A. indicates that most prevailing container costs will be high when compared with those in effect at the end of 1948. Quality will improve, as well as shipping schedules, and inventories can be kept to the proper turnover level. Resistance to higher prices are noted now in many commodities.

More and more products are being individually packed for the size of one-time consumption and this trend creates a healthy factor in the ever-changing and interrelated container industry, the report says. Many products have alternative types of packages and as costs and availability change, alert packaging engineers change their specifications.

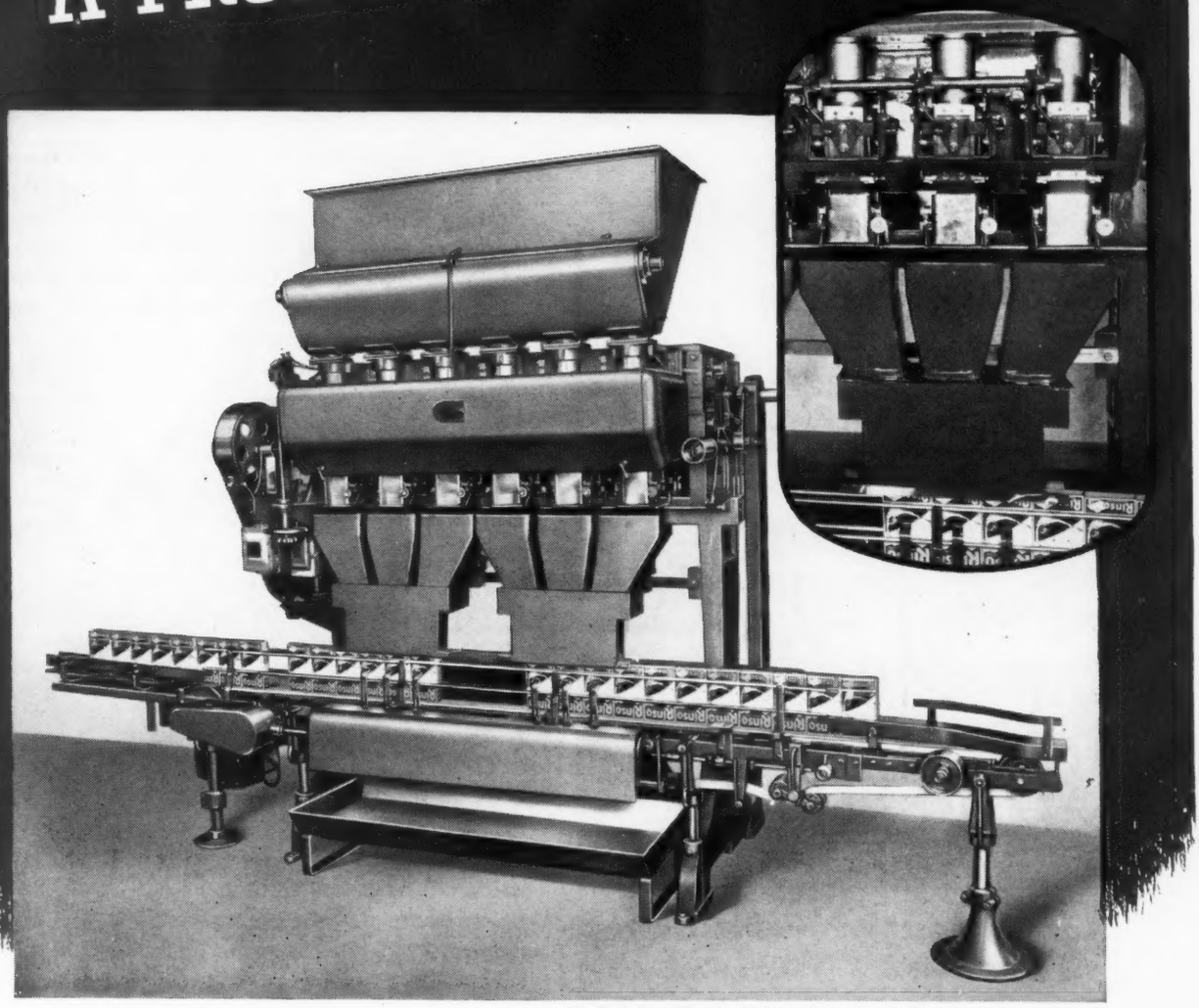
The report reveals that a lower glass-container demand, first noticed in June, now permits prompt delivery of standard sizes and even for special orders, three or four weeks delivery is reported.

No recent price changes are indicated, even to reflect increased freight, although there is talk about an expected increase about April 1. Producers are actively seeking additional business, particularly on wide-mouth ware. The government directive on tin cans may very well increase glass-container demand. Operating supplies (at the decreased rate) such as soda ash, are not now reported as a serious problem, although fuel shortages are acute right now and seriously are interfering with manufacturing and shipping schedules.

The N.A.P.A. states that only the Far West reports paper boxes in short supply, although better delivery prevails than six months ago. A slight upward trend in price is reported. Statistically, the corrugated and solid-fibre box situation looks favorable from the buyers' viewpoint. In 1947, mill production exceeded that of 1946 by over 16%, whereas consumption approximated an 8% increase. Paper inventory in the hands of boxmakers, as of Jan. 1, was declared to be a "strong 30 days' supply." The price trend is leveling off and even an increase of linerboard, supplemented by another freight increase since the first of the year, has left box prices in line with late December figures. In rare instances, prices have been lowered, reflecting the predicted buyers' market reported by this committee last November. The report indicates there will be an

IS YOUR WEIGHING

A PROFIT OR LOSS CENTER?



Six Scale Net Weight Weigher for soap powder with close-up view of weighing mechanism and newly designed funnel arrangement for dust control when handling materials presenting a dust problem.

In today's competitive field, the weighing operation of any packaging production line could well be called its "profit and loss center." Weighing machine accuracy has become a "must" in the packaging industry and Pneumatic, a leader in the field for over fifty years, has specialized in precision built weighers of nearly every description.

Pneumatic machines are daily handling tons upon tons of such widely assorted products as soap powder, brown sugar, shelled nuts, prepared flours, flake cereals, rice, moth balls, coffee, soap flakes, apple nuggets, tea and macaroni. Your product will be best packaged on a Pneumatic machine that is designed and built to give you greater weighing efficiency at Lower Cost per Container.

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PACKAGING AND BOTTLING MACHINERY

Over ninety different machines for the packaging of dry, free-flowing products and the cleaning, filling, capping and labeling of containers for liquids and semi-liquids

Quick Change Heads on the 1948 Knapp SEMI-AUTOMATIC
To Wrap Various Sizes

Low in Cost! Available Now!

Yes, you can have *as many heads* as you wish on the 1948 KNAPP SEMI-AUTOMATIC! These heads are quickly and easily interchangeable. Each one is designed to make a taut, smart wrap . . . a *tailor-made* wrap in the KNAPP tradition of excellence. These heads will give a perfect wrap to various sized packages as follows: 4" to 12" long, 2" to 10" wide, ¾" to 3½" high. KNAPP SEMI-AUTOMATICS are backed by the KNAPP reputation for efficiency, sturdiness, fewest working parts, low initial cost, minimum upkeep. Cut down your overhead . . . improve appearance and sales . . . investigate the KNAPP SEMI-AUTOMATIC immediately.

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DON'T JUST WRAP • "KNAPP WRAPP"

KNAPP MANUFACTURING COMPANY
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easier delivery position and keen bidding by new suppliers if purchasing agents hold buying policy to 90 days and limit inventories to current needs.

Authentic sources report the N.A.P.A. says, that some packers have large inventories that remove them from the market because stocks have been built up by pyramiding purchases when advanced scheduling was required.

Continuous food freezer

A new type of food freezer, claimed by the makers to be the first major innovation in the commercial preparation of frozen food since the original plate freezer, has been developed by the Central Research Dept. of Food Machinery Corp. at San José, Calif., and is now undergoing test operation at the Santa Clara, Calif. plant of Pictsweet Food, Inc.

Designed, it is said, to streamline the commercial freezing of packaged food, the machine is built to handle automatically and continuously from $1^1/_2$ to 2 tons of pre-packaged food per hour, depending upon the commodity run and the refrigerant temperature. Feed and production rate is from 50 to 90 packages per minute. Package size is $1^1/_4$ in. thick, 4 in. wide and with a variable length of from $5^1/_4$ in. to $5^3/_4$ in. The $5^1/_2$-in. length takes all standard vegetables with the conventional 10 and 12 oz. net-fill weight, while the $5^3/_4$-in. length handles 1-lb. fruits in syrup. Approximately 4,500 packages of food can be contained in freezing residence at one time.

The freezer occupies a floor space of approximately 6 by 26 ft. and has an over-all height of 14 ft. It is designed for operation with ammonia, Freon-12 or Freon-22 in the range of from minus 25 to minus 50 deg. F. With this equipment it is both possible and practical to achieve high heat-transfer rates with packages of food in slicing contact with refrigerated surfaces.

Incoming packages of unfrozen food are conveyed by feed belt from filling line into the insulated enclosure which encases the freezer. Here the packages are stripped from the feed belt onto a revolving disk which delivers each to a position where a reciprocating plunger thrusts the packages, one at a time, into the bottom flights of two feed screws. Riding upward on the rotating screws, packages grow into a vertical stack of 64 cartons properly spaced for entering a corresponding column of freezing shelves.

A system of guide bars steer the vertical columns of cartons into the freezing shelves where mechanical fingers motivate each carton along its aluminum freezer shelf.

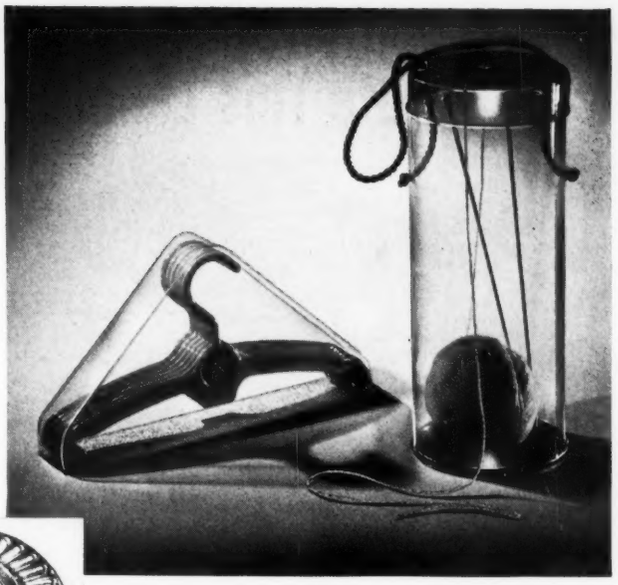
Completing the circuit through the refrigerated shelves, each column of 64 cartons is ejected onto a de-elevating screw from which the cartons are dropped, one at a time, onto a discharge belt. The frozen packages of food are now ready for overwrapping.

CUSTOM
ACETATE DISPLAY BOXES
Any Size — Any Shape

To combine gleaming beauty with display and protection, Plastic Artisans designs and makes transparent containers of heavy acetate sheeting. These containers—round, square, or irregular shapes—are ideal for specialty boxes, for consumer packages and for many other uses.

These boxes are custom manufactured to your specifications, to fit your product. Our design department is adept at creating novel, unusual presentations for your merchandise.

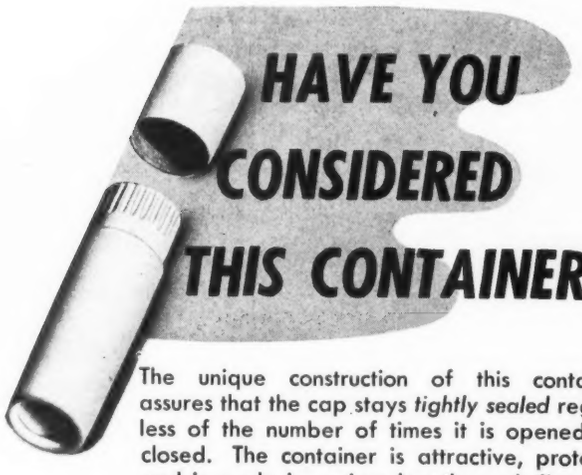
For full details about these deluxe containers, made to size and shape you want, call or write today.



◀ Plastic Artisans also makes luxury displays. This "dial" counter display for Evening in Paris lipstick is designed to encourage the customer to examine the merchandise—a good method of stimulating impulse buying.

PA

PLASTIC ARTISANS, INC.
70 Westchester Ave., White Plains, N.Y.



HAVE YOU CONSIDERED THIS CONTAINER?

The unique construction of this container* assures that the cap stays *tightly sealed* regardless of the number of times it is opened and closed. The container is attractive, protective and is made in various lengths and diameters. It is perfect for safe packaging of ampules, vials, pencil leads, roll film, fountain pens and points and many other products.

We can apply your label to any surface of this container or print the container, one color ink on white or colored stock.

Adaptable to automatic filling and closing.

The box that adds shelf appeal while affording perfect protection.

Ask for samples and prices.

* Pat. Pending

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BOX BOARDS

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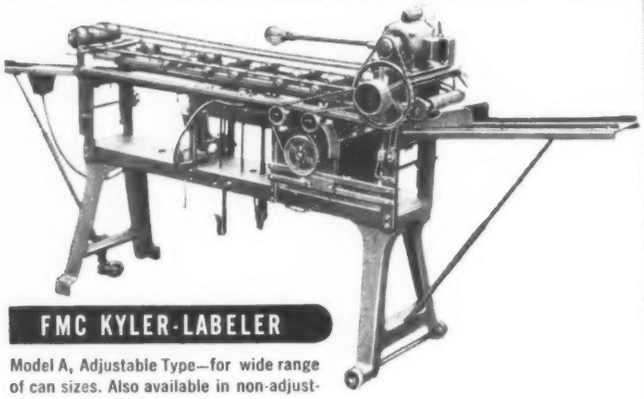
An Inexperienced Man Can Operate This Labeler...



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Model A, Adjustable Type—for wide range of can sizes. Also available in non-adjustable type for a single size can.

FMC-Kyler Labeling Machines are built with such extreme simplicity that an inexperienced worker can operate the machine and make all can-size adjustments.

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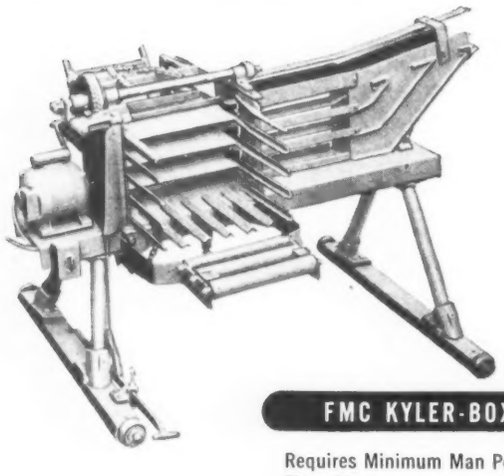

FMC KYLER-BOXER

Requires Minimum Man Power and Floor Space.

Model P shown here is Motor Driven, and built for any single size can. Operates at maximum speed. Extremely rigid and sturdy for long-life and low-cost operation.

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Write for this 260-page Catalog showing complete FMC Modern line of canning, processing and warehouse machinery.

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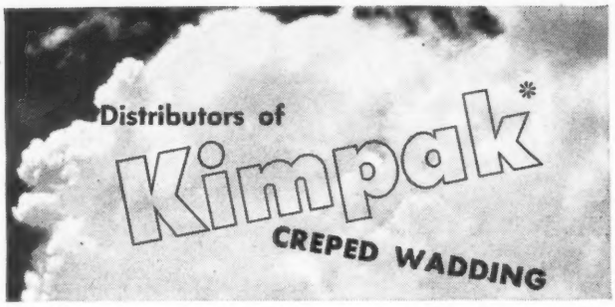

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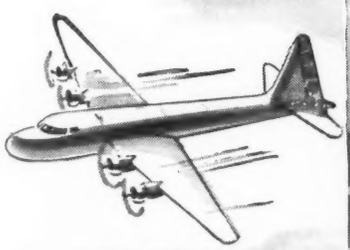

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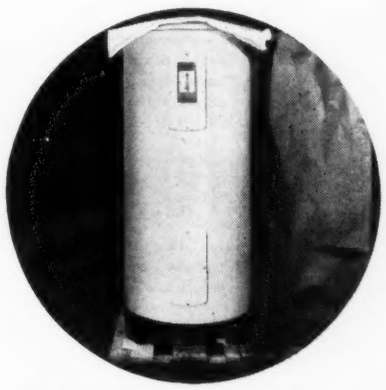
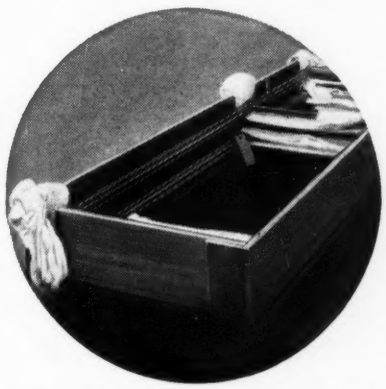
Wrap your products in strong, cushiony KIMPAK* creped wadding . . . and off they go to market—*safely*. For dependable KIMPAK clothes any product with complete protection—from shipping room to destination.

KIMPAK is soft, clean and good-looking—increases the eye-appeal of any package. It is pleasant to handle and economical. Feather-light and flexible, it adds little weight or bulk to shipments. Highly resilient, it withstands continuous shock and vibration without impairing its efficiency.

KIMPAK is made either liquid absorbent or liquid repellent. It is available in a variety of types, thicknesses and backings to suit your particular interior packaging needs. There is a specification of KIMPAK to meet every requirement of the Four Basic Methods of Interior Packaging—Surface Protection, Blocking and Bracing, Flotation Packaging and Absorbent Packaging.



Surface Protection—Water Heater Photo Courtesy Hotpoint Inc.



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PACKAGING ENGINEER: Nationally known firm in Metropolitan New York Area requires Graduate ME with 3 to 5 years high speed automatic machine experience. Some traveling. Complete resume. Salary required. Box 642, Modern Packaging.

FOR SALE: One 16" x 44" Cornell & Dengler, 3 color shook printer, new, never used. Suitable for imprinting one, two or three colors standard oil size 2/5 case shook. Complete with 5 HP 440 Volt 3 Phase 60 Cycle motor. Price $4,150.00. For further information contact D. G. Schnabel, California Texas Oil Company, Ltd., 551 Fifth Avenue, New York 17, N. Y.

MANAGER WANTED: for small, Canadian-owned box plant in Calcutta, India. The plant: has 20,000 sq. feet of manufacturing space and is producing folding, set-up and round packaging. Duties: to coordinate production, sales and office activities and supervise the training of the staff on American equipment. Salary: $12,000 per annum (with possibility of increase proportionate to ability shown) plus outfitting allowance, reasonable entertainment allowance and paid membership in a good Calcutta club. Terms: Contract basis, 30 months in India and 6 months' paid vacation—(two months travel time, four at home). All travel expenses paid. Requirements: Plenty of experience in the paper box industry, including some management training—initiative, intelligence and ability. This is a splendid opportunity for an ambitious young man. Box 643, Modern Packaging.

BRAND NEW—never uncrated—will sacrifice for quick sale. One Amsco simplex automatic bag making machine, model #2, complete with electric eye mechanism, thermostatic heat control, complete with electric motor. One Amsco Rotary Bag Sealing machine Model C, 110 volt, AC 1/4 HP motor Thermostatic heat controls, also slightly used American Standard Vegetable washer with extension and drip pan with 10' extension on feed end and Bean royal 20 pump and motor. Box 644, Modern Packaging.

WANTED—PRINTING Superintendent: Unique opportunity for a man well grounded in rotogravure, oil, and aniline printing. Must be capable of assuming full executive responsibilities for quality and production. Top salary to a topflight man. Job located in Ohio. Write background details to Box 647, Modern Packaging.

EXPANDING MARKETS: Established manufacturer has a number of territories open for packaging machinery. Will tie in nicely with salesmen selling containers or materials handling equipment. Write Box 646, Modern Packaging.

PLANT MANAGER: with know how experience in all phases of transparent plastic acetate container fabrication, desires position in same or allied field, with a well established progressive organization. Box 652, Modern Packaging.

LAMINATING—WE want a man who is familiar with the manufacturing problems of laminating metallic aluminum foil to paper on a continuous roll basis. We are located in Massachusetts and have all necessary equipment ready. Reply Box 651, Modern Packaging.

DRY WAX Bags for Sale. 2900 M 35# Bleached White Kraft Dry Waxed Bags 2 3/4" wide x 1 1/4" bellows x 4 1/2" long. In original cases. $1.50 per M. Subject to Prior Sale. Chr. Hansen's Laboratory, Inc., Little Falls, New York.

PLANT MANAGER: Executive—well qualified, with thorough background in all phases of folding carton operations and proven ability to produce quality work. The position available will offer an exceptional opportunity to a capable executive. Box 640, Modern Packaging.

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MECHANICAL ENGINEER, MME, 7 years' experience of design and development in Marine and Ordnance fields, with heat power, administrative engineering and machine designed services: well-grounded technical education; desire to accrue additional studies as necessary; age 27; desire employment by organization in packaging field within New York locality. Box 655, Modern Packaging.

SALES ENGINEER Wanted: Experienced man wanted by well established New York City extrusion house. Capable salesman will be backed by first class production and well seasoned experimental department. Reply stating qualifications. Box 645, Modern Packaging.

EXCESS INVENTORY for disposal. 756,000 sq. in. .005 thick 3/4" width acetate strip. 1,120,500 sq. in. .005 thick 1 1/8" width, acetate strip. The above in rolls of 1,000' length. 30,000 pcs. of .005 thick 9 1/2" x 9 1/2" acetate sheet. The above materials boxed, clean and just as received from the factory. Write Food Display Cover Co., Inc., 315 Transportation Bldg., Indianapolis 4, Ind., if interested.

PACKAGING & MATERIALS Handling Engineer Desires Change. Experienced executive offering exceptional background of experience and results, solicits replys from responsible organizations requiring a high grade man. Box 650, Modern Packaging.

PACKAGE DESIGNER and Packaging Engineer seeks responsible position East or West Coast. 12 years package design national accounts. Conduct package design programs rough to finished art; thorough graphic arts background. 9 years experience in management package engineering, research divisions leading merchandisers; damage rate reduction; package cost allocation methods; long term administrative experience; seasoned negotiator packaging material purchase contracts. Box 649, Modern Packaging.

CHEMIST AVAILABLE: See Notice on page 176. Box 653, Modern Packaging.

SALESMEN: Preferably with experience selling laminated and coated products such as are listed in our advertisement in this issue of Modern Packaging. Excellent territories available to right parties. State qualifications, age, experience and territory covered in first letter. Also if interested in salary or commission and amount. Floyd A. Holes Company, Bedford, Ohio.

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Lady's matching Princess Gardner wallet and key case, exquisitely designed from red Cobra skin.

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For greater sales appeal

Leading manufacturers choose Showbox for the *extra* sales stimulus of dramatic packaging. Gleaming, transparent, plastic Showboxes protect as well as display. Lids or sides may be imprinted in color or embossed in gold with your name or trademark.

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MODERN PACKAGING ADVERTISERS

MARCH 1948

ABC Packaging Machine Corp... 171
Agency—The L. W. Ramsey Adv. Agency

Ace Carton Corp..... 53
Agency—Bisberne Adv. Co.

Acme Steel Co..... 33
Agency—Leo Burnett Co., Inc.

Aluminum Co. of America..... 45, 91
Agency—Fuller & Smith & Ross, Inc.

Aluminum Seal Co., Inc..... 57
Agency—Fuller & Smith & Ross, Inc.

American Can Co..... 60
Agency—Young & Rubicam, Inc.

American Coating Mills..... 58
Agency—Carter, Jones & Taylor

American Cyanamid Co..... 55
Agency—Hazard Adv. Co.

American Paper Goods Co., The. 161
Agency—Platt-Forbes, Inc.

Anchor Hocking Glass Corp..... 11, 62
Agency—The Griswold-Eshleman Co.

Anderson Bros. Mfg. Co..... 199
Agency—Cummings, Brand & McPherson

Arvey Corp..... 37
Agency—Burlingame-Grossman

Bakelite Corp..... 47
Agency—J. M. Mathes, Inc.

Ball Brothers Co....Inside Back Cover
Agency—Applegate Adv. Agency

Beck Machine Co., Charles..... 168

Bemis Bro. Bag Co..... 59
Agency—Gardner Adv. Co.

Better Packages, Inc..... 187
Agency—Ben Sackheim, Inc.

Bostitch, Inc..... 74
Agency—James Thomas Chirurg Co.

Braun Co., W..... 56
Agency—Malcolm-Howard Adv. Agency

Bridges Plastic Products..... 188

Brooks & Porter, Inc..... 39
Agency—Hirshon-Garfield, Inc.

Burt Co., Inc., F. N..... 145

Cady & Co., E. J..... 185
Agency—Robert A. Gallagher

Calmar Co..... 175

Cambridge Paper Box Co..... 180
Agency—The Eddy-Rucker-Nickels Co.

Cameo Die & Label Co..... 193
Agency—Shaw Associates

Celanese Plastics Corp..... 17
Agency—Ellington & Co., Inc.

Central Fibre Products Co., Inc. 203
Agency—Cruttenden & Eger

Central States Paper & Bag Co.. 207
Agency—Padco

Chambers-Storck Co., Inc..... 198
Agency—Freiwald Coleman

Champlain Co., Inc..... 21
Agency—O. S. Tyson & Co., Inc.

Chicago Carton Co..... 27
Agency—Evans Associates Co.

Classified..... 206

Cleveland Container Co., The... 183
Agency—The Nesbitt Service Co.

Commerce Oil Corp..... 174
Agency—Reinhold C. Ferster Adv. Co.

Consolidated Packaging Machinery Corp..... 167
Agency—Baldwin, Bowers & Strachan, Inc.

Continental Can Co..... 12
Agency—Batten, Barton, Durstine & Osborn, Inc.

Creative Printmakers, Inc..... 197

Crown Cork & Seal Co.:..... 24
Agency—Speed & Co., Inc.

Crown-Mark Paper Corp..... 67
Agency—Wendell P. Colton Co.

Decatone Products Div..... 31
Agency—Arthur M. Hillery

Dextone Color Prints..... 182
Agency—Town Adv. Associates

Diamond Straw & Machine Corp. 189

Diffenbaugh Co., The P. H..... 181

Dobeckmun Co., The..... 65
Agency—Fuller & Smith & Ross, Inc.

Dodge Cork Co., Inc..... 86
Agency—Foltz-Wessinger, Inc.

Driscoll & Co., Martin..... 171
Agency—Burlingame-Grossman

DuPont Cellophane..... 22
Agency—Batten, Barton, Durstine & Osborn, Inc.

DuPont Cel-O-Seal..... 209
Agency—Batten, Barton, Durstine & Osborn, Inc.

Eastman Kodak Co..... 155
Agency—J. Walter Thompson Co.

Empire Can Corp..... 166

Farrington Mfg. Co..... 159
Agency—Sutherland-Abbott

Feder Industries, Inc..... 63

Ferguson Co., J. L..... 18
Agency—MacDonald-Cook Co.

Filler Machine Co., Inc..... 186
Agency—Packard Adv. Agency

Filtrol Corp..... 192
Agency—Heintz & Co., Inc.

Findley Co., F. G..... 9
Agency—G. Willard Meyer Co.

Fitchburg Paper Co..... 31
Agency—Arthur M. Hillery

Food Machinery Corp..... 204
Agency—Van Auken & Ragland

Gair Co., Inc., Robert..... 42
Agency—Wortman, Barton & Goold, Inc.

Gardner-Richardson Co., The... 48–49
Agency—Stockton, West, Burkhart, Inc.

Gaylord Container Corp..... 211
Agency—Oakleigh R. French & Associates

General Mills, Inc..... 32
Agency—Batten, Barton, Durstine & Osborn, Inc.

General Printing Ink Div..... 28

Gibbs-Brower Co., Inc..... 44

Goodrich Chemical Co., B. F.... 7
Agency—The Griswold-Eshleman Co.

Goodyear Tire & Rubber Co., Inc..... 15
Agency—Kudner Agency, Inc.

Gummed Products Co., The..... 76
Agency—Hugo Wagenseil & Associates

Gutmann & Co., Ferdinand.... 199
Agency—Louis M. Cottin

Hampden Glazed Paper & Card Co..... 177

Harcord Mfg. Co..... 54

Hayssen Mfg. Co..... 183
Agency—Frederic T. Wurl

Hazel-Atlas Glass Co..... 179

Heat Seal-It Co..... 190
Agency—M. L. Beresin

Heekin Can Co..... 30
Agency—Midland Adv.

Heinrich Co., H. H..... 160
Agency—Rea, Fuller & Co.

Hess & Barker..... 181
Agency—Sommers-Davis, Inc.

Hinde & Dauch Paper Co., The.. 165
Agency—Howard Swink Adv. Agency, Inc.

Holes Co., Floyd A..... 180

Howell & Co., F. M..... 188
Agency—Howell Adv. Agency

Hudson-Sharp Machine Co..... 158
Agency—Jack C. Wemple

Industrial Magazine Service.. 162, 166

International Printing Ink..... 93
Agency—Fuller & Smith & Ross, Inc.

Ivers-Lee Co..... 26
Agency—Kenyon-Baker Co.

Jones & Co., Inc., R. A..... 5
Agency—The Keelor & Stites Co.

Kidder Press Co., Inc..... 195, 196
Agency—James Thomas Chirurg Co.

Kimberly-Clark Corp..... 204, 205
Agency—Foote, Cone & Belding

Kimble Glass..... 169
Agency—J. Walter Thompson Co.

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Knapp Mfg. Co. 202
Agency—Howard Smith Adv. Agency

Krause & Associates, Fred'k A. 29
Agency—Robert A. Gallagher Adv.

Kupfer Bros. Co. 19

La Rose & Associates, Inc., W. T. 70

Lowe Paper Co. 8

Lusteroid Container Co., Inc. 170
Agency—Fred H. Ebersold, Inc.

Mack Molding Co. 185
Agency—George Homer Martin

Manhasset Machine Co. 192

Marathon Corp. 35
Agency—Le Vally, Inc.

Markem Machine Co. 52
Agency—The Callaway Associates

Mason Box Co. 168
Agency—Howard Wesson Co.

Matthias Paper Corp. 23

Mead Board Sales, Inc. 69
Agency—Gray Rogers

Miller & Miller, Inc. 176
Agency—Richard Cole

Milprint, Inc. 10
Agency—G. Willard Meyer Co.

Modern Containers, Inc. 197

Monsanto Chemical Co. 212
Agency—Gardner Adv. Co.

Mosstype Corp. 167
Agency—D. E. Rothschild Adv.

Mullinex 73

Mundet Cork Corp. 92
Agency—J. C. Bull, Inc.

Murray Container Corp. 184
Agency—Packard Adv. Agency

Nashua Gummed & Coated Paper Co. 83
Agency—Sutherland-Abbott

National Adhesives ..... **Inside Front Cover**
Agency—G. M. Basford Co.

National Can Corp. 50
Agency—Doyle, Kitchen & McCormick, Inc.

National Paper Box Mfrs. Ass'n. 88
Agency—Howard Wesson Co.

New Jersey Machine Corp. 51
Agency—Diedrich Adv. Service

Niemand Bros., Inc. 203

Old Dominion Box Co., Inc. 77
Agency—Howard-Wesson Agency

Oliver Machinery Co. 191
Agency—Dean-Hicks Co.

Owens-Illinois Glass Co. 75, 173
Agency—J. Walter Thompson Co.

Oxford Paper Co. 46
Agency—Kudner Agency, Inc.

Package Machinery Co. 146
Agency—John O. Powers Co.

Packard Container Corp. 158

Palm, Fechteler & Co. 68
Agency—I. H. DuFine Co.

Palmer, Inc., Frank D. 61
Agency—Harold Hitchcock Associates

Perfektum Products Co. 200
Agency—Givaudan Adv., Inc.

Peter Partition Corp. 182
Agency—The Irving Davis Co.

Peters Machinery Co. 157

Phoenix Metal Cap Co. 1

Plastic Artisans, Inc. 203

Plastic Film Corp. 194
Agency—John A. Cairns & Co., Inc.

Pneumatic Scale Corp., Ltd. 201
Agency—Alley & Richards, Inc.

Potdevin Machine Co. 175

R. C. Can Co. 87
Agency—Eggers-Rankin Adv. Service

Redington Co., F. B. 3
Agency—Kuttner & Kuttner, Inc.

Rhinelander Paper Co. 79
Agency—Frank C. Nahser, Inc.

Riegel Paper Corp. 64
Agency—W. L. Towne

Ritchie & Co., W. C. 66
Agency—Stanley Pflaum Associates, Ltd.

Rodgers, Co. Inc., George G. 187

Roto Bag Machine Corp. 85

Rowe Packaging Co., Ltd. 71

Rowell Co., Inc., E. N. 94

Rubner, Inc., Gustave 89

Seal-Spout Corp. 200
Agency—Mercready & Co.

Shellmar Products Corp. ..**Back Cover**
Agency—John Stover Adv. Agency

Smith Co., The S. K. 163

Standard-Knapp Corp. 82

Stein, Hall & Co., Inc. 16
Agency—Al Paul Lefton Co.

Stokes & Smith Co. 34
Agency—R. E. Lovekin Corp.

Sun Chemical Corp. 28

Sun Tube Corp. 72
Agency—Doherty, Clifford & Shenfield, Inc.

Sylvania Div., American Viscose Corp. 40, 80
Agency—J. M. Mathes, Inc.

Taber Instrument Corp. 157
Agency—Melvin F. Hall Adv. Agency, Inc.

Traver Corp. 25
Agency—Jewell F. Stevens Co.

Trilsch Co., Oscar 198
Agency—Chelsea Adv. Art Service

Troth, Bright, Page 90

Tupper Corp. 14
Agency—Chambers & Wiswell, Inc.

United Board & Carton Corp. 13
Agency—Gotham Adv. Co.

Warner Brothers Co. 81
Agency—DuPont & Cahalin, Inc.

Warren Plastics Corp. 160
Agency—Certified Adv. Agency

Waxed Paper Institute, Inc. 193
Agency—Howard H. Monk & Associates

Weinman Bros., Inc. 190
Agency—T. R. Bauerle Adv. Agency

West Carrollton Parchment Co. . 78
Agency—Kircher, Helton & Collett, Inc.

Western Carton Co. 189

Western Waxed Paper Co. 73

Wirz, Inc., A. H. 41
Agency—Roland G. E. Ullman Org.

Wood Conversion Co. 43
Agency—The Buchen Co.

Wrap-Ade Machine Co. 194

Wright's Automatic Machinery Co. 6
Agency—Harvey-Massengale Co., Inc.

Zophar Mills, Inc. 184
Agency—Gunn-Mears Adv. Agency

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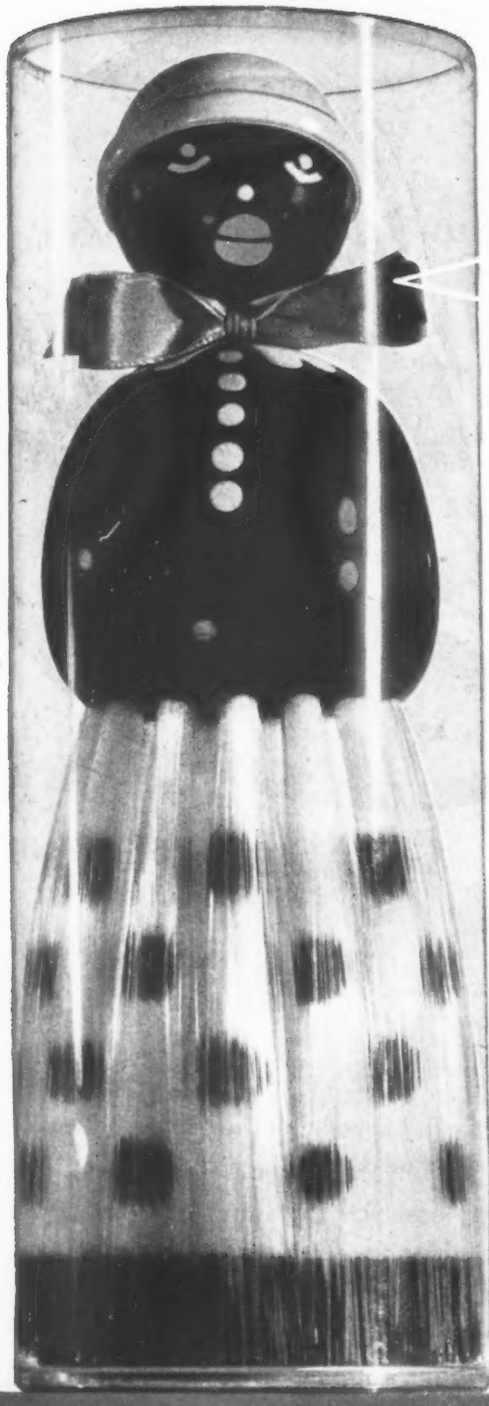

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